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Heads Coast Exchange

On its management committee since he became a member of the Vancouver Stock Exchange 25 years ago, Scottish-born John McGraw, head of Continental Investment Corp. is this year's president of the 47-year-old West Coast stock trading centre. Several times a vice-president, and once before president (1938) he has since seen share volume rise to 28.8 million traded last year for a turnover of $26.6 millions. (Personality Sketch, page 6).

RUSSIA'S PROPOSAL

I Talk Trade with Ambassador; He Likes It To Promote Peace

By MICHAEL BARKWAY

OTTAWA (Staff)—The Russian drive for trade with western countries has been extended to Canada.

The opening move in the Russian approach was made this week, when Soviet Ambassador Dmitri S. Chuchavin summoned a press conference. Unable to attend that function, I later saw him alone.

The ambassador's secretary met me at the door and showed me into the drawing room of the famous embassy on Charlotte Street in Ottawa. It is well furnished, but as cold and lifeless as the waiting room of a penitentiary.

Mr. Chuchavin did not keep me waiting. He is plump but alert, and he gave me a free rein with my questions. He greeted me in English, but his fullest answers were given in Russian to the young secretary who translated.

What Russia Would Buy

The first thing I wanted to know was whether the Russian Government proposed to trade in commodities which it wants to sell or to buy, or whether it is merely holding out political bait by offering to trade in things in which Canada may be interested. So I asked for the ambassador's ideas on what Russia might buy from Canada.

This is the list, as it was slowly translated to me:

—Agricultural products.

—Machinery and equipment.

—Raw hides or shoe leather.

I asked "what agricultural products?" and the answer was: "meat, butter — or even wheat." (Russia is selling some wheat to other countries under its recent trade agreements; but the available information indicates that it has a poor cereal crop this year and is not offering much in the way of cereals to Western Europe.)

Secondly, what machinery and equipment?

The ambassador had interrupted the secretary's translation at the word "machinery" to put in: "and equipment." I asked what sort of thing. He said immediately, "turbo-generators and that sort of th ng." (Turbo-generators were also on the list given recently to a delegation of U. K. businessmen in Moscow.)

What about ships?

I said Canadian ships were not competitive, in price, with European ships. His answer was, in effect: "as to price, that is for the trade organization, Promexport. But I expect a way could be found. I understand the Canadian shipbuilders need the business."

The young secretary added: "We are buying ships wherever we can get them."

(Ships are on the allied list of strategic goods which may not be sold to Russia.)

He never mentioned textiles.

"In the Cause of Trade"

Then I asked what Russia might sell to Canada, and I remarked that past history was discouraging for the development of trade between our two countries. Even before the war the average Canadian-Russian trade amounted to less than half a million dollars each way, with the one significant Canadian import being furs—as it still is, though in lesser quantity.

Here the ambassador made a

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PRICES

Cotton yarns—now down to below pre-Korean levels in many cases—may move up again soon. The decline began in first half of last year and continued into early weeks of this year.

Cement prices may be cut reflecting increasing competition from European producers. The price action may not be uniform, however, depending on freight and degree of competition in different parts of the country.

Titanium: First price cut for manufactured titanium metal mill products by leading U. S. mill, averages 12%. Rapidly expanding production said to have reduced costs.

Zinc has been cut another ¼c a lb. by a large U. S. custom smelter.

Cocoa: Most brands of cocoa have been increased recently by 45c a case of a dozen 1-lb. tins. Chocolate coating and flavorings have also been boosted by 10c a lb.; second increase in past six weeks. Increase reflects soaring green bean prices.

Instant Coffee prices have advanced by some $1.20 per case of 24-oz. This, on top of earlier increase of around 40c, makes a total rise of $1.60 per case in last month or so.

Reds Gnawing At Auto Union

Communists Seeking to Drive Wedge Between Union Leaders and Rank and File of UAW In Ford, Windsor, and GM, Oshawa, Strongholds

By TREVOR LLOYD

What appears to be a Communist-inspired plan to undermine one of Canada's most powerful industrial unions has brought on a king-sized headache for leaders of the union.

Right now it doesn't look as though the plan will bring serious trouble. But to avoid it, leaders of the 60,000-member United Auto Workers are walking a mighty narrow path.

The plan strikes at the heart of union strength, the Ford of Canada plant in Windsor and General Motors in Oshawa. It entails the old Communist weapon of spreading dissatisfaction and bringing rifts within the union organizations in each plant.

Apparently even the Communists don't expect the undermining will result in serious industrial conflict; they are satisfied to cause trouble now and lay groundwork for more drastic action later when they hope leadership position is weakened.

Capitalizing on leveling economic conditions that are slowing the wage climb, the Communists have apparently designed a plan to stir up resentment against union leadership. At Ford, the plan is carried out by an element advocating wildcat strike action. At General Motors it is being carried out, by a young group who have rebelled against the old guard in the local and against both national and international leaders. In both cases it may be unwitting co-operation with the Reds.

What's Involved

Here, briefly, is the story at each plant.

The Ford dissension came to light at the Ontario CCL convention in Niagara Falls earlier this month. Sam Lore, an executive member of Ford's local and prominent in the 1951 wildcat strike, urged similar wildcat action be taken this year. The excuse he used: that the Windsor plant "was a good place to start to fight the (conciliation) law" which he said was "strangling" unions.

Later, Lore claimed he had been misquoted; that he was merely advocating an "illegal" strike to test the law.

His idea may sound fairly convincing to some Ford workers whose union has applied for conciliation after failing to reach settlement with the company on the 1954 contract.

But UAW's Canadian leader George Burt seemed to have the convention behind him when he answered that wildcat strikes violate the UAW constitution, the union's concept of democracy and usually the contract between the union and the employer.

He said any strike at Ford would be illegal until conciliation proceedings were concluded. Another speaker was widely applauded when he noted that strikes, to be effective, should be timely and well-advised. Wildcats, he said, are never timely and are ill-advised.

This leadership opposition is expected to be the biggest factor in keeping left-wingers in line. This group realizes it will not get the union support it did in 1951 when the union was able to get several workers reinstated in their jobs after they had been fired for instigating the wildcat action.

The situation at General Motors is not so straightforward. There a rift has been developing since the war years between what are called the "old guard" and the "young turks." Stock of the latter group has risen though the old guard are still theoretically in control.

The "young turks" have twice been successful in getting the membership to turn down ratification of an agreement incorporating all GM plants in Canada. It isn't rejection of terms as much as opposition to the UAW national and international leaders though the local group refers to the agreement as company-dictated.

Leaders of the group are not Communists themselves but the Party is willing to help them gain power and to encourage their defiance of union discipline.

There is no evidence of any collusion between the "young turks" and the Communists but the action and policy of the young group is certainly playing into the hands of the Reds.

The whole problem at Oshawa evolves from the attitude of the

(Continued on page 3, col. 2)

Inside News

Construction Outlook

In commerce, housing, utilities, transportation, industry — new frontiers — Canada's construction boom continues. What's being built, what's new in building materials, how construction company securities are doing, what's ahead . . . a comprehensive Post report (pp. 33 to 72).

'Poor Man's Tax Court'

So you think Ottawa took too big a tax bite? There's one place to settle it: the Income Tax Appeal Board. A special Post report on the "poor man's tax court" (p. 17).

Stock Price Gauge

What's the outlook for common stock prices? One investment analyst thinks they're going up and he tells why (p. 17).

Canada's Problems

Can Canadians afford complacency? Or have we got some glass houses to clean? On the political and economic fronts, representative Canadians offer some suggestions (p. 9).

A Tax Guide

On deductability of expenses, tax collectors and businessmen often disagree. But a new ruling should help allay some business fears and help guide tax collectors (p. 10).

Sport to Politics

For highlights of the current British scene, from sport to politics, plus pithy comment see Letter from London (p. 32).

Stock Switches

Stock switches have added income to the Compton account. He reports on stock sales and purchases and market trends in Managed Investment (p. 5).

THE NATION'S BUSINESS

Dilemma of Railways Gets Worse & Worse

Running one of our railways must surely be about the worst job in Canada. In addition to all the problems that beset the manager of anything else, whether it be a big or little business, the railway operator has his arms tightly roped up by government and other regulations.

So the men hired to run the railways are not allowed the power to do so.

Unless there is soon a major revolution in government policy, we will have a constantly expanding mess of insoluble problems. The railway customer will suffer. And so will the ultimate and ever-present sacrificial goat for blind and escapist policies, the tax payer.

These gloomy forebodings are stimulated by the current Transport Board report which refused two main appeals from the CPR.

The CPR wanted the Board to say the CPR represents a net investment of so many dollars; on that investment it should get a return of so much; hence rail rates should be adjusted to provide the income necessary to maintain that yield.

If that principle were acceptable the CPR had a second request. Then, it said in effect, on that formula we need an immediate increase in freight rates of 9%.

Both pleas were turned down. We're not much surprised.

Our reason? Both the Transport Board and the railway operators have by now been condemned to flailing around in the murky waters of the dilemma created for them (a) by government's policy of strict railway supervision and (b) by government's refusal to take a realistic look at basic railway problems.

On the immediate decision, we aren't surprised that officialdom refused to adopt as the basis for setting freight rates the principle that a railway should net so much on its investment.

That's a very big cabbage to swallow at one gulp.

From CPR's point of view the demand obviously had the merit of making possible the raising of money necessary to keep pace with Canadian development and to effect the modernization and rehabilitation required to keep the property economic.

From the public point of view that basis of rate setting has less to commend it. For instance: Is it desirable that a certain yield on railway investment be in effect guaranteed regardless of railway costs? If railway labor demanded and got a 50% wage increase is that cost item to be piled into the equation and freight rates to be hoisted automatically?

Only One Way Out

It is vital to both railway and the national welfare that we get a halt to the vicious pattern of recent years in which necessary freight increases were time and again gobbled up by wage rate increases. But it is equally vital that government re-think its whole approach to railway problems.

When they began, railways were virtual monopolies in the transport field. Today, the railways have no monopoly. They are up against the sharp realities of fierce and growing competition from trucks, airplanes, pipelines, plus that other kind of competition provided by alternative materials and markets.

Government started off with a railway policy of tinker, supervise and interfere. That policy over the years became a policy of let's tinker more, supervise more, interfere more. Now the railways are so tied up that government must approve how many times the whistle shall be tooted at Punkin Corners.

The more government interferes, the more it finds to interfere with and the less elbow-room railway management has to do those things necessary and wise for the railways and the public interest.

The only escape from this bottomless pit of frustration, stupidity and ultimate disaster is a complete about-face on policy. Tear off the confining hands. Let the railways managers manage. Let them pay the inevitable penalties which customers will give them if they are greedy or unwise. Let government ask not how much do we regulate but how little can we possibly regulate?

* * *

It's the Key to New Jobs

This year should be the biggest ever in the Canadian construction industry.

Spending on new construction, according to an official survey just completed, should be almost $3.9 billions. This is 6% above 1953, which was an all-time record.

That is significant news for every person in Canada because construction is a basic, job producing industry.

Two thirds of all the new capital investment in Canada goes directly into construction and two thirds of this in turn into the kind of construction — factories, mills, highways, refineries, power plants, railways and so on — that provide new jobs and new opportunities for our rapidly expanding population.

Two or three million dollars spent on a brand new industrial plant is only the beginning of new and permanent business. After the contractor and his workers move on, in comes new machinery and a steady flow of raw materials. In, too, comes a whole new staff of workers who will be permanently employed in the new plant. And exactly the same thing happens when a new highway is built, or a branch of new railway. They all bring new jobs and new business for Canadians.

This week in a 40-page special report, The Financial Post takes a look at Canadian construction in all its phases, at its accomplishments, its problems and its prospects.

It's a big and vital story, a document of proof that no depression scare can shake business faith in this country's future.

Hectic Pace in Unlisteds Touched Off By Geco Boom

By W. L. DACK

Last year, you could have filled your hat with it at four cents a share.

Last week, one dealer traded 173,000 shares of it in one day, at prices ranging up to $2.90 a share, before a drill had even been on the property.

"It" is Lun-Echo, and what has been happening to Lun-Echo is just a sample of the hectic trading pace that's been going on in the "unlisted" stock houses.

Sparked by the boom in the Manitouwadge area mining stocks, the boom is the biggest in the unlisteds since the Quemont run back in the spring of 1945. Combined volume in several of the top Toronto houses is believed running well over the million-share-a-day pace.

The phenomenal Geco which touched off the whole Manitouwadge show and has tripled in price in a couple of months to $12.50 a share, traded 61,500 shares in one day before graduating to the big listed trading board of the Toronto Stock Exchange.

There have been only three other market booms of the current proportion—Quemont in 1945 and Gunnar and Bathurst in early 1953. But in all three cases the chief stocks affected have either been already on the big trading board when the finds were made or moved there quickly afterward.

"It seems as if everyone and their aunt wants to get into the speculative swim," says a prominent Toronto unlisted dealer. "Some people call us up and say they want a stock in the Manitouwadge area and then ask us what we have to offer."

The current boom serves as a warning against ever papering the walls with what looks like worthless stock certificates. At least half a dozen old timers that had been inactive—or without bids—for many months have spurted into the limelight because they have property in the area—Oklend, Kenogamisiss, Clinger, Chellew, etc. Many other depressed issues have been bid up sharply because they have secured options on property somewhere in the general Manitouwadge area.

In the next few days two new stocks — the Boylen-sponsored Nama Creek and the Alator-financed Man-echo Mines—will further swell the unlisted group of Manitouwadge stocks.

Rarely have the speculators waited with such bated breath for the next drill hole news. But the heavy snow is slowing activity, despite all the stress on speed. In the meantime, dozens of mining deals are being hammered home and contracts for geophysical work and drilling programs lined up.

But with all the activity mine-wise and market-wise, the whole Manitouwadge show is still resting on the laurels of one good stock—Geco. It alone has been able to produce the type of electrifying news the market is looking for. The two next best bets—Willroy and Lun-Echo — have secured promise in early drilling activity.

No Deductions For Dividends In Quebec Tax

By GORDON MINNES

MONTREAL (Staff)—As debate on Quebec's new personal income tax bill got under way in the Legislative Assembly this week, experts here unearthed a couple of provisions which, for many Quebec investors and businessmen, will mean even higher provincial taxes than appeared likely at first glance.

One important point, for instance, is that no deduction is to be allowed for dividends received in calculating an individual's Quebec tax liability.

Under federal law, investors can subtract from their tax liability 20% of the Canadian dividends they received. A very valuable clause to many taxpayers it also encourages equity investment. The fact that no such credit will be allowed in figuring the Quebec levy means that those with dividend incomes

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Capital Expansion Up Again in '54

The Government's annual Survey of Investment Intentions is one of the most useful barometers there is for estimating the climate ahead for business. Herewith highlights of Trade Minister Howe's preview of the new survey on which details are expected in about a week:

Private business and governments between them intend to spend a new record in capital investment in Canada in 1954. Their intentions amount to a projected capital investment, in new buildings and new plant equipment, of $5,838 millions. This is 2.8% above what was actually spent in 1953, an estimated $5,679 millions.

Last year's "actual" exceeded the last February forecast by 4%, and now this year's intentions are up again by nearly 3%.

Last year's expenditure on new capital plant amounted to 23.5% of the estimated gross national product, which is a new postwar high. If this year's intentions are fulfilled, they look like taking up a similar proportion of the efforts and production of Canadians in 1954.

Within the new record total, two significant shifts are indicated.

—Private business is expanding more than governments.

—Construction is expanding in quite a big way, while less will be spent on new machinery and equipment.

Capital outlays by all levels of government will be only very slightly higher than they were in 1953. The Federal Governments program is slightly down. Provincial expenditures on capital works are expected to be about the same, and the municipalities will spend a little more than last year.

But private business is planning capital expenditures on a scale which accounts for the total increase of 3%. Showing up particularly strongly are institutions such as schools, churches and hospitals, trade and financial houses—stores, banks, warehouses and the like.

This perhaps accounts partly for the marked swing to new construction.

Total expenditure on new construction by business and governments last year came to $3,646 millions, $232 millions more than the forecast made a year ago. This year it is expected to come to $3,865 millions — an increase of 6%.

Last year's expenditure on new machinery and equipment reached its highest peak at just over $2,000 millions. This year the peak seems to have been passed. Present intentions, according to the Government's survey, amount to an expenditure of $1,973 millions in 1954. This is a reduction of just $30 millions or 1½% from last year.

The complete figures expected in about a week will show in greater detail where the capital investment is being directed this year.

Regina Gets Ready For Natural Gas

From Our Own Correspondent

REGINA — The Saskatchewan Power Corporation will begin immediately to design a $5 million natural gas distribution system for the City of Regina.

Fish Engineering Corp., of Huston, Texas, will do the job under contract. The design is in preparation for the trans-Canada gas pipeline which will pass close to the city.

Not decided yet is the question of who will distribute the gas in Regina. If the city decides on a municipal public gas utility, it may purchase the plans at cost.

Seedmen Eye The Weather, Ready For Spring Splurge

Just about now Canada's seed industry is casting a quizzical eye at the weather. Within the next 30 to 60 days falls the industry's most critical sales period.

Canadian home gardeners, in the mass, apparently are a fickle bunch. Their interest in gardening, if nurtured by good weather, reaches the seed-buying point by late March, early April.

"Give us a week or 10 days of fine weather in March or April, and everybody's a prospective gardener. But, if the weather goes bad, they're discouraged. Bingo! — they're polishing up their golf clubs instead," a seed distributor comments.

If the weather gods are kind this spring, Canada's seed distributors will be shipping off "hundreds of tons" of flower seeds to transform the mud patches behind the country's rows of new homes.

(Don't let that tonnage figure fool you. Some flower seeds, those of the aster, for example, number something like 12,000 to the ounce.)

Good weather or bad, Canada's seed industry is doing right well for itself these days. It's thriving in a bountiful economic climate.

First of all, the housing boom has created an unprecedented market from St. John's to Victoria. It's a big market, steady and virtually out of the luxury class.

"Who ever heard of anyone buying a house and leaving it sit for very long in the middle of a mud patch?" a seed man asks.

The shortest step any new homeowner takes is a lawn. Grass seed is a blossoming business.

The average homeowner doesn't go much beyond a lawn, but many insist on a few shrubs to liven up the lot and annual flowers, like marigolds, petunias or nasturtiums, to brighten up the summer vista.

But the core of the home seed market is that hardy band of amateur gardeners who trowel, sprinkle and cherish a plot of land into a blaze (they hope) of horticultural glory.

For some it's an obsession, complete with dreams of awards and blue ribbons. For most it's a safe and sane hobby.

The ranks of the latter group have swelled enormously in the last decade. Seed men figure there are two solid reasons for this: the five-day work week and its new leisure; the new do-it-yourself trend combined with a shortage of professional gardeners.

Actually, although there are thousands of varieties of flower seeds, the average Canadian gardener plants only about a dozen. His choice is limited, of course, by the seeds packaged and on display at his local shop (he seldom looks any farther). On the other hand, his tastes dictate what's to be packaged.

Our basic seed industry, which buys, sells, tests and distributes the seeds, is probably one of the most unusual. For one thing, it's probably the most cosmopolitan.

One big Toronto firm this week has at least 1,000 varieties of flower seeds in its warehouse. Seeds in each category might have

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More Glamour And Less Gloom

Full-Fashioned Hosiery Sales Take A Pretty Curve

At least one section of the gloom-plagued textile industry poked into a silver lining this week and dusted off a long-pigeonholed word: optimism.

It had good reason: Canadian gals are turning on the glamour; sheer hose is getting sheerer.

At the same time, demand for heavier service-weight and "textured" stockings is increasing.

While the shouts of glee weren't entirely confined to the industry, textile people were taking a crisp, business-like view of it all and liked what they saw:

—The sales curve is pretty. Per capita, full-fashioned hosiery consumption by Canadian women went up to 11.1 pairs in 1953, from 9.7 pairs in 1952.

—There's an evident swing in consumer preference back toward brand lines.

—There's a growing demand for hosiery bearing a "made in Canada" transfer:

—Milady is responding happily to an unprecedented number of constructions, styles and gimmicks newly introduced to the hosiery market.

To keep Canadian women (and men) happy—and sales nimble—the hosiery industry is planning vigorous promotion. Women will be urged to develop wardrobes of stockings designed for various occasions. The suitability of hosiery as gift items will be stressed.

Increased demand for brand lines is reported by several mills. This, coupled with the growing importance of the "Canada" label, is considered encouragingly significant by the industry.

What's A Bargain?

Said one industry spokesman: "It looks as if shoppers are finally realizing that the cheapest stocking on the market may not be the best bargain after all.

"In the past year or two, the Canadian woman has been bombarded with hosiery at many prices. Experience had to teach her why some could be made more cheaply than others. It's beginning to look now as if she has learned her lesson."

Many mills are basing their hopes on "top quality plus" (the "plus" meaning, in various cases, hose with long-wearing features or guarantees, high-styling, or package deals involving containers that can be used as evening bags, jewel cases, sachets or cosmetic pouches).

At least three mills—Sheer Silk, Sherbrooke, Que., Butterfly, Drummondville, Que., and Weldrest, Toronto—are awaiting delivery of 75-gauge full-fashioned knitting equipment, the highest point yet attained in the industry's climb toward higher gauges. The machinery is designed for knitting with either 12 denier or ultra-sheer 10 denier yarn, the latter of which is now being produced in Italy.

Two other Canadian companies —London Hosiery Mills, London, and Avalon Hosiery, Montreal—have ordered 400-needle seamless machinery in a bid to cash-in on

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Stock Market Highlights

Industrials

Canada Cement dropped $7 from week ago to $90 on prediction of lower cement prices and volume at annual meeting.

Ford of Canada A slipped back about $4 after touching record $81¼ last week.

Thrift Stores common jumped $2½ to $28½ on news of stock dividend, near-doubling of net profit.

George Weston Ltd. slipped back about $3 after touching record $39¾ last week.

Mines

Noranda Mines reaches $62, 1954 high, up from year's $58 low, on news of strike settlement.

Consolidated Smelters off narrowly to new low for year of $22 as zinc cut further quarter cent to 9¼c a lb. in U. S. market.

Geco Mines touches another $12¾ high Tuesday on erroneous reports of big length of 5% copper cut in deep drill hole east of fault. Three holes, however, further confirm good ore of commercial tenor.

EATON'S

A "Regal" purchase by Eaton buyers visiting Italy

Luxurious

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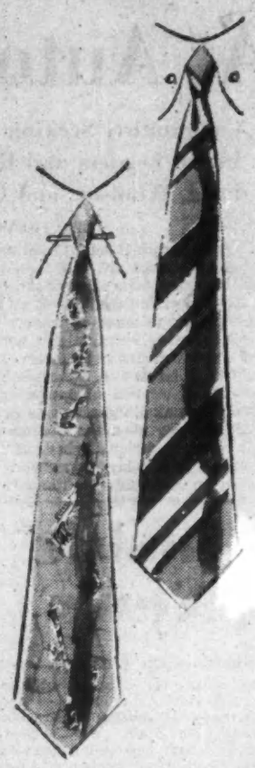

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PLUS: "The Seven Living Ghosts of Nuremberg," an uncensored report on Rudolf Hess and the other imprisoned Nazis . . . Robert Collins' "In the Lost World of Cypress Hills" . . . and a host of other features that regularly distinguish each issue of Canada's National Magazine.

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Directorate-General of Shipping (Ministrie van Verkeer en Waterstaat) The Hague, The Netherlands. Holland-America Line, Agents.

SEE YOUR TRAVEL AGENT

I Talk Trade with Ambassador

(Continued from page 1)

remark which I thought significant. The gist of his answer, as I got it, was that trade is a good thing to encourage anyway. He strongly implied that if Russia had to buy some things it didn't particularly want, never mind, it was all in the cause of trade.

The secretary said to me "the ambassador is a great optimist about this. He thinks that Canada is interested in trade with the U.S.S.R. and perhaps even more interested than we are."

I asked him to explain this. Chuchavin poured out his answer in Russian to the secretary, who said: "The ambassador does not wish to be misunderstood. But he gathers from Canadian press reports that there are many goods that Canada wants, and needs, to sell."

Then Chuchavin took a direct hand in it. "Such exports could help to provide employment, couldn't they?" I said that Canada was always glad of an opportunity to increase its exports. The ambassador gave a slight shrug of his shoulders. It was Mr. St. Laurent's familiar gesture in miniature.

What Russia Might Sell

Sometimes we got back to the second question: "What would Russia sell us?" The list, as Mr. Chuchavin gave it through his secretary, was this:

—Manganese ore.
—Chrome Ore.
—Petroleum products.

I had no query about the first two, though the ambassador took occasion to point out that they are commodities on the list of strategic goods which the West will not sell to Russia. I did tell him that I thought we imported little in the way of petroleum products: it was mainly crude petroleum. He spoke of our imports from Venezuela — "It's for Eastern Canada, isn't it?"—and I said "mostly crude."

Checking the figures after, I guess we were both right. Crude exceeds petroleum products by a wide margin in our imports, but we do also import some products ranging from aviation gasoline to diesel fuel.

But the ambassador added some more suggestions. He put on the list caviar, vodka, other wines, furs. And he said: "There are lots of things we could trade in."

"You talk," I said, "as though trade is a value in itself, even if you don't much want the goods. What is the origin of this new interest in trade?"

In answer I was assured that it wasn't a new trend. It had always been the policy of the Soviet Union. It was important because it made for mutual understanding. And mutual understanding made for peace. Here the ambassador took over from his interpreter: "and peace is the objective of the Soviet Union — whatever the propaganda you hear that says otherwise."

How They Would Promote It

I then asked about means by which this trade is to be promoted. I got two answers:

On the Canadian side, "a good many firms have been writing letters to the embassy enquiring about the possibilities of trade."

As I tried to place these letters more exactly I was told that they followed Trade Minister Howe's press interview of Jan. 4, in which he said Canada was willing to do more trade with Russia, but not in strategic goods. Later, mention was made of a specific and recent letter from a Montreal firm enquiring about the possibility of buying manganese and chrome from the Soviet Union. Others enquired about chemicals and one about "hog's bristles."

On the Russian side, a new trade representative from Russia will arrive very soon. First would come an assistant commercial counselor named Dranov. Later a full commercial counselor will be appointed. He would deal with all the letters on the Embassy files, and with the new letters which would come in.

Then I asked whether this trade must be by barter, whether it must be between governments, whether there must be a precise balance between the two countries.

The Ambassador did not think there would have to be a strict bilateral balance. "We are now trading," he said, "with all the world. If we are a little short on one account, we may be long on another. We are not short of dollars," he added with perceptible emphasis on the "we." I said I knew they had plenty of gold; but he looked at me directly with a pleasant smile and said: "I said we are not short of dollars."

For some time he seemed to evade—perhaps deliberately, perhaps not — the question about government or private trade. But finally he broke down and said: "If we had gone to the Department of Trade and Commerce we would have been told to get in touch with private traders."

The Barter Question

As to barter, I never got a straight answer. I was reminded that C. D. Howe had said . . . "even by barter"—though not that he said . . . "even if private traders want to arrange barter deals."

And, finally, in answer to my last question, the Ambassador reminded me that he wasn't a trade expert; and it would be for the trade organization, Promexport, to say whether trade must be by barter or not. But he did suggest that financial means could be arranged—"why," he said, "your banks might be interested."

As I left the big house, two things stood out in my mind:

1. The main reason for the Russian trade approach to Canada is political. It fits into the pattern of their approaches to most other western nations.

It is not unconnected, here or anywhere else, with the attempt to loosen the bonds between the United States and other western countries. The repeated stress on what Russian trade could do for Canada —and the apparent indifference about what it would do for Russia—emphasized this.

2. Russia may be looking for incidental trade advantages for itself. The list of goods required from Canada is not just the list which would be built purely on an estimate of what Canada needs to sell. There is some air of reality about meat, butter (which the U.S.S.R. has been trying to buy elsewhere too), hides and leather, and machinery and equipment. There also seems little doubt about Russia's real need for ships, though whether this need would outweigh the price factor in buying from Canada remains to be seen.

3. No one can ever tell whether the Soviet Government makes its own people go short in order to sell abroad something which it thinks might be advantageous. But manganese has been sold to other countries, and may well be in surplus. Or it may be merely the easiest way of trying to prove that it's silly to refuse to sell strategic goods to Russia. No one can tell. But the list may be a genuine list of the things that Russia would most gladly sell.

4. Some trade possibilities may be real. The Canadian Government will not hinder or discourage them, as long as they don't cross the strategic boundary as agreed with our allies. They may be perfectly all right. But we would be simple not to realize that they are open only because the government of the Soviet Union happens to think they will give it some political advantage.

While we were talking, Ambassador Chuchavin looked me straight in the eye. He smiled and laughed. He gave something of the impression that the Russians usually give— that they are dealing with someone rather simple.

He is plump, and his hands are short and fat. But as he left me, after a handshake when he did not look me in the eye, I saw him bounding up the stairs as lightly as a young gazelle.

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CBC Will Beam Television Toward Schools Next Autumn

Experimental educational telecasts — viewed in classrooms as part of regular curricula — will be beamed at Canadian schools next fall.

The TV programs, such as dramas based on Canadian history, will reach schools in areas served by CBC-TV stations next November. The programs will be available to privately owned stations too.

CBC also plans to work on an entirely new slant of educational TV starting this spring. TV programs related to school radio broadcasts will be telecast after school hours, to be viewed by the students at home.

Planned to begin March 19, the after-school programs will actually be visual supplements to the radio school broadcasts now heard in most English-speaking schools across the country.

"(It) will mark the first time anywhere that such a plan has been tried," the CBC announced.

The first of these after-school TV programs will take a look at prospecting. It will be telecast in the late afternoon of the same day as the National School Radio Broadcast on the same subject.

All the TV programs scheduled for the experimental during-school telecasts have been planned by a committee of the National Advisory Council on School Broadcasting, under the chairmanship of George Croskery, secretary of the Canadian Teachers' Federation.

Final outcome of the experimental programs will depend on the reports of teachers, who will comment on their value to the schools.

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ANNOUNCING

Important Appointments in Canadian Industry, Finance, Business and Government

Alberta and Northwest Chamber of Mines and Resources (Edmonton)—Wallace H. Collie, manager, Bank of Montreal, treasurer.

A. V. Roe Canada Ltd. (Malton, Ont.)—F. T. Smye, vice-president and general manager, aircraft division; W. R. McLachlan, vice-president and general manager, gas turbine division.

British American Oil Co. (Toronto)—D. J. Winter, vice-president marketing; D. L. Campbell, vice-president manufacturing.

Campbell Red Lake Mines Ltd. (Toronto)—Joseph Chisholm, general manager.

Canadian Admiral Sales Ltd. (Montreal)—Guy Bell, branch manager, Montreal.

Canadian Fire Insurance and Canadian Indemnity Companies and United Canadian Shares Ltd. (Winnipeg)—W. Culver Riley, president; T. Bruce Ross, general manager; A. L. Denison, vice-chairman of the board; W. A. Murphy, vice-president; John H. McCallum, secretary.

Canadian General Electric Co. (Toronto)—W. F. Smith, manager, new component products department, industrial products division; Ralph F. Harrison, manager-sales, molded plastics.

Canadian Institute of Plumbing and Heating (Montreal)—W. Maxwell Ford, general manager.

Canadian Marconi Co. (Montreal)—W. V. George, United Kingdom representative; A. Hammond, broadcasting manager; H. T. G. Hill, public relations and advertising manager.

Crown Life Insurance Co. (Toronto) — N. D. Campbell, actuary; J. E. Moore, comptroller; G. N. Watson, group manager and actuary.

Ditto (Quebec) Ltd. (Montreal)—Stanley J. Burke, vice-president and director.

Dome Exploration (Canada) Ltd. (Toronto)—Robert S. Stronach, general manager.

Dominion Dairies Ltd. (Montreal)—W. R. Aird, chairman of the board; F. L. Hart, president and general manager; Murray H. Stewart, comptroller; T. H. Bauland, divisional manager, Acme Farmers Dairy Ltd., Toronto. Mr. Stewart will also be in charge of labor relations of the company.

Dominion Oilcloth & Linoleum Co. (Montreal)—Kenneth B. Roberton, president.

Goodyear Tire & Rubber Co. of Canada (Toronto)—George A. Meen, assistant manager, advertising department.

Granby Elastic Textiles Ltd. (Granby, Que.) — Paul Panneton, vice-president; J. A. Hess, director.

Great Lakes Paper Co. (Toronto)—C. J. Warwick Fox, president.

Household Finance Corp. of Canada (Toronto)—D. G. Glennie, manager, new Toronto Eglinton shopping centre branch; D. S. Fraser, manager, Red Deer, Alta.; A. H. Ellerbeck, manager, Lethbridge, Alta.; L. R. Botterill, manager, Medicine Hat, Alta.; D. A. McNeil, manager, new St. John's, Nfld., branch, 63 Water St.; G. J. McCann, manager, 2477 Bloor St. West, Toronto; D. G. Hamilton, manager, Brockville, Ont.; L. R. Woodall, manager, Stratford, Ont.

Kelvinator Sales Corp. Ltd. (London, Ont.)—Paul E. Flanders, general manager.

Lightning Fastener Co. (Toronto)—Wm. K. Nobles, manager, new sales engineering division; Rufus D. Lafiskali, Ontario district sales manager.

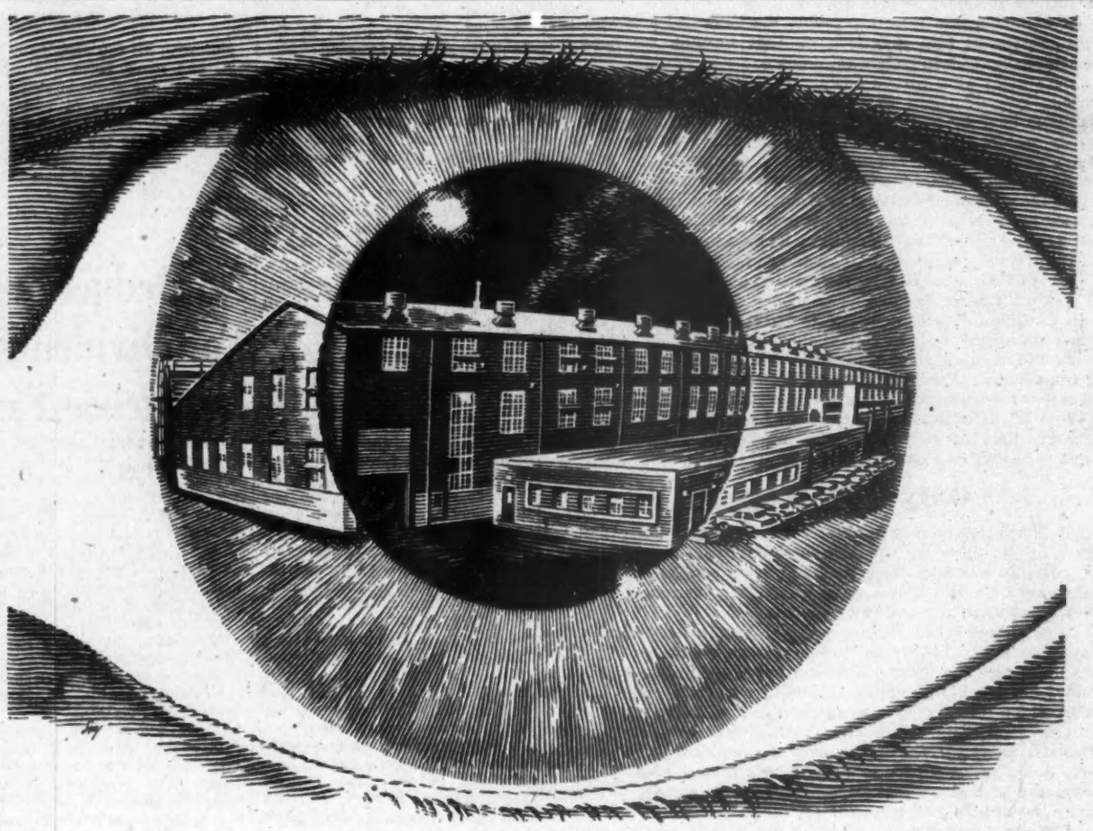
Sigma Mines (Quebec) Ltd. (Toronto)—Frank J. O. Connell, general manager.

Stevens-Hepbner Co. (Port Elgin, Ont.)—Roy Lightfoot, general sales manager.

Trans-Canada Air Lines (Montreal)—W. L. Fabro, director of passenger services; J. L. McLellan, director of station services.

Triad Oil Co. (Calgary)—M. R. Bridgeman, managing director of D'Arcy Exploration, and A. F. Downs, also of D'Arcy Exploration, directors.

Walsh Advertising Co. (Windsor)—W. G. Abel, executive staff.



A Two Million Dollar Eye on the Future

At Canada Iron we make, among other things, cast iron ingot moulds for the steel industry. It has been an important part of our business for years. Today it is gaining in importance. Canada's steel industry has been expanding rapidly, and we have been growing with it.

To keep up with the demand for ingot moulds, we have recently built a second plant in Hamilton. It is the most modern and efficiently operated ingot mould plant on this continent and is designed to produce *nothing but* ingot moulds. It represents a two million dollar investment on the part of our shareholders.

The plant's actual capacity is 800 tons of moulds a day. But at present it's not working to full capacity, which is quite intentional. For we built the plant with one eye on the future.

The manufacture of ingot moulds is tricky. The mould must be able to stand tremendous thermal shocks when molten steel is poured into it again and again.

Consequently, at Canada Iron we have modern, fully equipped laboratories in which the cast iron is carefully tested. The care we take in the manufacture of ingot moulds has earned us, among steel men, a reputation of which we are very proud.

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Paper Machinery Limited
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Hydro Turbine Company, Limited

No Dividend Deductions In Quebec's Income Tax

(Continued from page 1)

will find the higher basic exemptions offset to some extent.

A second point is that distributions of previously undistributed income will be taxable.

There's no provision in the Quebec bill similar to Section 95A of the Federal Act. Under this, companies can capitalize undistributed income by paying a 15% tax, and a stock dividend tax-free in the hands of shareholders can then be paid. The provincial bill indicates that distributions such as these must be included in income for tax purposes.

The only exception is where the distributing company is a non-resident of the province and over 50% of its voting stock belongs to taxpayers not living in Quebec.

Depreciation Calculations

Another point which tax-men dislike is on depreciation. In calculating the income of a partnership, the diminishing-balance method of figuring depreciation (e.g. 10% of $1,000 the first year, 10% of $900 the second, etc.) is to be used. At the same time, the straight-line method (e.g. 10% of, $1,000 each year) is still prescribed for figuring provincial corporation income tax.

They contend that partnerships and corporations should be on the same depreciation footing in the province. As it looks now, corporations will pay tax on an income different from the one they would calculate if they were a partnership and different from the one on which they pay federal income tax (Ottawa uses the diminishing balance method). Actually, Premier Duplessis has been asked to change the corporation set-up to the diminishing balance method, the argument running that it encourages new investment. But nothing has been done so far.

Tax tables for employers are now being prepared and should be completed shortly. Collection at the source will add to the headaches and expense of company accounting departments but should cut the cost to the province considerably.

Some collection difficulties may develop, notably with those living outside Quebec. An outside individual will be liable for tax on the part of his income "that may reasonably be attributed to the duties performed or to the business carried on by him in the province," less deductions. This will hit people living, say, on the Ontario side of the border but working entirely or partially in Quebec.

Legally, these people can all be assessed by the province, and collection should be fairly routine where payroll deductions are made at the source (such as in a Quebec factory) or where some of the man's assets are located in Quebec and could be seized (such as the operator of a store, gas station, etc.). But in the odd case (an insurance agent living in Ottawa and doing some of his business in Hull, for instance), the province could find it impossible to collect.

The reverse situation—a man living in Quebec but working in Ontario—seems to be covered pretty clearly.

According to the bill, everybody resident in Quebec at any time in the taxation year is liable and in his income involved in computing the tax includes that "from all sources inside and outside the province and, without restricting the generality of this provision, includes income from business, property, offices and employments."

A person will be considered resident in the province in a year if he "sojourned" there for a period or periods totaling 180 days or more.

But here again, if a man skipped the province without paying, Quebec would have a tough time trying to collect. If the government suspects that somebody is planning such a move, it can demand payment immediately.

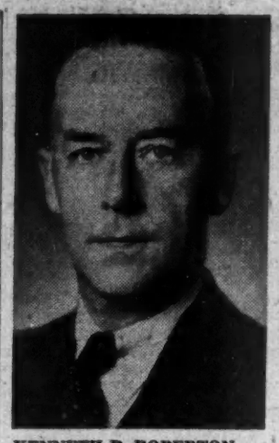
The tax, expected to yield some $22 millions a year, will of course be felt most heavily in the Montreal area.

Latest complete breakdown of federal tax returns is for the 1951 tax year. During that period, 362,540 taxpayers in the Montreal metropolitan area paid $129.3 millions into the federal coffers as personal income tax. This was equal to 71.5% of the $180.8 million total paid by all Quebec taxpayers. Quebec City added $8.6 millions or 4.7%.

Total number of Quebec residents paying federal income tax for 1951 was 611,030. An estimated 305,000 will be liable for the provincial tax and, because of the higher exemptions, the load is expected to be concentrated even more heavily in the Montreal area.

A further breakdown of 1951 federal returns showed that 550,540 "employees" paid $115.8 millions; 32,560 business proprietors paid $27.5 millions; and 6,540 professional people paid $10.3 millions. Only 430 farmers, 10 fishermen and 50 forestry operators paid any income tax at all, laying out a total of $75,000.

Thus, Premier Duplessis' already great voting strength in the rural areas will be affected hardly at all.



KENNETH B. ROBERTON

has been elected president, Dominion Oilcloth & Linoleum Ltd.

Seedmen Eye The Weather

(Continued from page 1)

come from two, possibly three countries.

Flower seeds come from every Canadian province, from California, the Netherlands, Denmark, and "just about every nation on earth," a distributor explained.

Oddly enough, Canada exports seeds of the same varieties it imports. Throughout the world, there is a regular interflow of vegetable and flower seeds. Different nations seek particular strains of what is often a native plant.

For example, the Canadian seed industry does big imports as well as exports in seeds of such common vegetables as cauliflower, onion, carrot.

"It helps to balance out the picture. This trade takes some of the sting out of a 'famine' seed crop anywhere in the world," a seed man said.

The large seed house, buying seeds from far off places, relies to a great extent on the reputation of its suppliers. If the seed importers aren't sure af a "new name," they'll either send out an experienced buyer or request a sample to test.

"Often we'll send a buyer to look at seed growing right in the fields," one explained.

And he's probably one of the few men in the seed distributing industry — the birthplace of thousands of gardens—who actually enjoy their own end products.

"We seldom see flowers. We'd have to go to a florist's to see some," one distributing executive said, rather sadly.

Laurentide Accept. Doubles 3-Mo. Net

MONTREAL (Staff) — Net profit of Laurentide Acceptance Corp. totaled $67,342 in the quarter ended Jan. 31, more than double the $30,082 shown a year earlier, according to an unaudited statement. This was equal to 90c per share on the average number of class A shares outstanding during the period, 45c per outstanding class B share, and 35c per share on the combined average of A and B shares outstanding.

Earned income after reserves rose to $403,246 from $238,894. Expenses were higher at $118,133 ($80,445), as were cost of borrowings at $153,066 ($93,131) and taxes at $64,702 ($35,236).

At Jan. 31, 1954, assets of the company totaled $16,657,185 ($11,306,648 a year earlier). Retail notes receivable amounted to $12,894,238 ($9,116,549), wholesale notes receivable to $2,999,271 ($1,971,459). Current liabilities totaled $6,435,163 ($6,445,157) and unearned income was shown at $1,469,170 ($1,009,698).

C-I-L Reorganization Details Due Soon

Details of the reorganization of Canadian Industries Ltd., in which some assets will go to Imperial Chemical Industries and some to du Pont of Delaware, are expected to be revealed shortly, The Post understands.

Reds Gnawing At Auto Union

(Continued from page 1)

"old guard" who formed the union in 1937 and since have made no room for young blood. Also contributing to the situation is a traditional attitude in Oshawa that workers there are a cut above other GM employees in the country and that they can get along by themselves without assistance of the parent body.

The Oshawa agreement was scheduled to run to June, 1955 but was opened up last summer because of the switch from the cost-of-living index to the consumers price index. Since no agreement has been reached, payment is still being made on the basis of c-o-l. Ottawa is not now issuing c-o-l figures and each month, after giving special figures to GM, says it cannot continue the practice.

And while the two groups battle on, rank and file workers are losing out on wage increases offered by the company last summer. So far, employees have lost amounts ranging from $10 to $100. If the impasse continues until the contract expires next year, the total loss to employees will be about $2 millions.

In both Ford and General Motors plants, there seems little doubt that the UAW leadership will be able to keep the Reds under control. But the problems will take a lot of attention and make settlement with the companies that much more difficult.

More Glamour Less Gloom

(Continued from page 1)

the increasing popularity of this construction. London Hosiery this week began delivery of its first production.

Several other firms are importing semi-manufactured seamfree hose from the U. S. and finishing them in their own plants.

In placing the total apparent Canadian market for full-fashioned stockings at 4,650,000 dozen pairs in 1953, as against 3,949,000 dozen pairs the previous year, the full-fashioned hosiery section of the Canadian Woollen and Knit Goods Manufacturers Association estimated that Canadian women increased their purchase of full-fashioned hosiery by nearly a pair-and-a-half each last year. (The per capita consumption figure is based on the country's population of women of 15 years of age and more.)

Total apparent market and per capita figures do not include seamless hose (no statistics yet available) which met with increasing demand during the year.

Seamfree Sales

Over-all U. S. statistics on exports of U. S. seamless hose to Canada, and estimates of retail sales in this country, suggest that full-length and knee-high seamfree hose probably captured 5% or 6% of total sales.

In the full-fashioned field, Canadian production increased from 3,474,000 dozen pairs in 1952 to 4,080,000 dozen pairs in '53. Imports rose at about the same rate, from 503,000 dozen pairs to 600,000 dozen pairs.

Exports of Canadian full-fashioned hose rose slightly, from 28,000 dozen pairs in 1952, to 30,000 dozen pairs last year.

While the figures on Canadian production include full-fashioned hosiery of nylon, viscose, lisle and silk, only 2% or 3% of the production was in yarn other than nylon. Of the imported hose, 92% was in nylon, the balance in lisle.

In Very Brief

LAMBTON LOAN & INVESTMENT CO., Sarnia, Ont., net profit of $71,761 or $4.54 per share for 1953 was 9.3% higher than 1952 net of $65,707 or $4.16 a share.

MANITOBA POWER COMMISSION net profit of $483,026 for 1953 was 11.8% higher than 1952's $407,686. Total energy distributed was 16% greater, total assets at year-end 18.2% higher.

Look For It Here

February 20, 1954

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Publishers and Postal Act: What The Fuss Really About

By permitting Canadian magazines and periodicals to use multiple points of entry for second-class mailing, instead of a single entry point as at present, the Post Office would enable publishers to avoid delivery delays and, where necessary, use air cargo or other speedy means of transmittal to expedite delivery of national publications to their readers.

That, says the Periodical Press Association, is the important object of the change in the Postal Act proposed by the Government in the amendment which was ruled out of order last year.

Interviewed by The Financial Post, PPA officials pointed out that in the United States publishers have long enjoyed the privilege of entering their publications at post offices throughout the country, particularly where the publisher has made special arrangements for speedy transport to principal cities. Carloads, or less, of publications are transported by air cargo, fast freight, or other means to as many as 30 different mailing points.

In Canada, with a single point of postal entry, all copies of a Canadian publication must go through the one post office no matter what the destination may be. This creates special problems both for the publisher and the post office.

In addition, U. S. periodicals which, in the aggregate, enjoy in Canada twice the circulation of all Canadian-owned periodicals, have the option of either mailing from their own publishing centres direct to Canadian newsagents and subscribers, or shipping in bulk into Canada and mailing at Canadian postal rates, when more favorable, to newsagents and subscribers.

Incidentally, regardless of any liquor advertising it contains, a U. S. periodical may be freighted into Toronto, for example, and mailed from the Toronto post office at current Canadian rates of postage to any recipient within the Province of Ontario or anywhere else in Canada. A Canadian periodical which may carry liquor advertising, enjoys no such privilege, the Ontario law prohibiting publications carrying such advertising from being both printed and published within the province.

Periodical Press Association officials state that the proposed amendment to the Postal Act could not, as has been suggested in some quarters, "give special privileges to liquor advertising in provinces where liquor advertising is forbidden.

Fuzz In Your Fruit Cocktail? Don't Call It Peaches—Yet

OTTAWA (Staff) — When's a peach not a peach?

The old answer was: "When she's in Hollywood."

The new answer: "When it's a fruit cocktail."

The Tariff Board has given notice of a hearing next month to determine whether it is proper to levy duty on "fruit cocktails" as though they were "canned peaches."

An Ottawa company is bringing up three different entries of fruit cocktails. It claims they should be admitted as "Canned fruits, n.o.p." (not otherwise provided for), which would mean a duty of one cent a lb., including the can.

This is how they were admitted:

Del Monte Fruit Cocktail and Del Monte Fruits for Salad, at Ottawa, last February: as canned peaches, duty 2½ cents per lb.

All Good Fancy Fruit Cocktail, last October, at Montreal: as canned peaches, duty 2½ cents per lb.

Dainty-Mix Brand Fruit Cocktail, last April, at Montreal: as "fruits and peels, crystallized, glacé, candied or drained; cherries and other fruits of creme de menthe, maraschino or other flavor": duty 25%.

So, just what is a fruit cocktail?

The experts here prophesy a lot of detailed analysis, some appeal to the scales, and — they hope—perhaps a little sampling, when the case comes up on March 11.

The explanation of the curious tariff set-up is that when the article was settled, back in 1938, fruit cocktails were much rarer than they are now. The significant trade between United States and Canada was in canned peaches, canned apricots (there's an item for them), and such delicacies as maraschino cherries. Nothing else was worth taking very seriously. So all the other things got an n.o.p. rate of one cent a lb.

And now the customs people have to prove how much of a fruit cocktail is peach. It should be interesting.

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These Debentures will be direct obligations of the Company but will not be secured by hypothec, mortgage or other charge.

In the opinion of our Counsel, the Debentures of this issue will be investments in which the Canadian and British Insurance Companies Act states that companies registered under Part III thereof may, without availing themselves of the provisions of sub-section (4) of Section 63 of the said Act, invest their funds.

We, as principals offer these Debentures if, as and when issued by Aluminum Company of Canada, Limited and accepted by us, subject to the approval of all legal matters by Messrs. Geoffrion and Prud'homme on behalf of the Company and by Messrs. McMichael, Common, Howard, Ker & Cate on our behalf.

Price: 99.50 and accrued interest

It is expected that Temporary Debentures, later exchangeable for Definitive Debentures, will be available for delivery on or about March 4, 1954.

The right is reserved to reject any or all applications, and also in any case to award a smaller amount than is applied for.

A prospectus, a copy of which has been filed under the provisions of the Companies Act, will be promptly furnished on request.

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INVESTMENTS THIS WEEK

By PAUL DEACON

The Rise in Building Stocks

What's Behind 20% Increase Over Past 5 Months

(See pages 45, 47, 51, 52 for progress reports on individual companies.)

In the general market advance which has occurred since the 1953 lows of September and early October, one of the stronger groups has been the construction and building materials section.

From Oct. 2 to Feb. 9, the Toronto Stock Exchange Industrials index has risen 9%, the Montreal Stock Exchange Industrials 6.7% and Dow Jones Industrials 10.2%.

The rise during this period for stocks of nine companies in various sections of the construction and building materials field averaged 20.3%. This is based on the assumption that an equal amount of money had been invested in the common stocks of each of the nine companies studied.

The nine stocks are shown in the accompanying table and are covered in greater detail in the special report on the construction industry elsewhere in this issue.

The strength in the building group is attributed to the good results shown by those companies which have reported on 1953 operations, and to prospects that a good level of activity will continue in the industry in 1954.

The decline in the prices of the construction stocks from their 1951-52 highs—it was toward the end of 1951 and early in 1952 when Canadian stocks hit their postwar peaks—was due to expectations of a drop in building activity and also partly to the movement of the general market.

But the market since last fall has been stronger. One interpretation at least is that the recession investors had been anticipating is now with us, that it won't be severe and business is due to pick up again in second half of 1954.

Construction stocks have gone with this trend in the general market. If the nine stocks studied (see the accompanying table) are at all representative, they have received more favorable attention from investors than the general list.

This was probably due not only to good 1953 results but also to the growing evidence that while some sections of the construction industry may have a slightly less busy time this year, the over-all level will likely be very close to record 1953.

Indications are that residential building could well be even greater than in 1953. With more than one quarter of all construction expenditures going into this field, this is a significant factor in the outlook.

Officials of Dominion Tar & Chemical, for instance, recently predicted its high volume of sales in this field would continue at least until mid-1954. This company's recent acquisition of Cooksville Co. and Brantford Roofing Co., plus its new building materials plant at Cornwall, have made the construction market a big factor in the company picture.

There are some signs that industrial construction will be off somewhat. Even here, however, the evidence is not conclusive. The final results for 1953 are not yet available, but it's possible that when they are, it will show that an expected drop in industrial building last year did not materialize.

In any event, there's a remarkable lack of pessimism among officials of companies dependent on the construction industry—including some people who have been predicting downturns ever since the end of the war.

Among the nine stocks studied, there is quite a divergence in yields, and in recent prices, in relation to past earnings. The latter calculation is hampered by the fact that five of the nine cases, earnings for the 1953 fiscal year aren't yet available.

Lowest yield is on Canada Cement at 3.11%, closely followed by Canadian Dredge & Dock. In each case, the prospect that things may actually get going on the St. Lawrence Seaway project is a factor in the high price of these stocks in relation to dividends, since both concerns might be expected to benefit from this huge undertaking. There has also been talk of a possible split in Canada Cement shares. Still another factor in Canada Cement's case has been the company's excellent earnings record recently, even with higher than normal write-offs, and prospects of another good year this year.

On the other end of the scale is the 6.25% return on Standard Paving common. The $1.50 a share in respect of 1953 earnings included a special 50c dividend paid early in January.

The two paint companies in the group show the lowest price-earnings ratio. In both cases, marked increases in earnings were shown for their 1953 fiscal year, which ended August 31.

Canadian Dredge is selling at the highest price in relation to earnings (1953 results aren't available yet, of course). This is a special situation to the extent that as mentioned earlier, this stock's price is undoubtedly a reflection of Seaway construction prospects. Canadian Dredge has traditionally bounced higher on any favorable Seaway news—it has doubled in price, despite a drop in earnings, since it became apparent that Canada intended to get the project under way as soon as possible and alone if necessary.

Dividends are in most instances well covered by earnings, and in at least five cases, on the basis of latest reported earnings, there appears to be room for an increase.

On the other hand, in five cases the stocks have already reached or passed their 1951-52 highs. The other four are close to those highs.

This isn't necessarily a minus factor, to the extent that it reflects normal growth of business and earnings. But it indicates to the investor that the market has already taken into consideration at least part of the "good news" in its appraisal of construction industry shares.

HERE'S RECORD OF 9 BUILDING STOCKS

Common Stock:	1951-52 High	1951-52 Low	1953 High	1953 Low	Recent	Price change since Oct. 2 1953	Earnings per Share 1951	Earnings per Share 1952	Dividend	Yield	Price to latest fiscal year earn'gs
	$	$	$	$	$	%	$	$	$	%	$
Building Prod..	38¾	26½	40	34	39	+8.3	*3.24	*3.54	1.80	4.62	11.0
Can. Cement ..	95	53¾	91	72	96½	+27.0	*4.82	*6.97	3.00	3.11	13.8
Cdn. Dredge & Dock	88¾	37½	55	45	54	+9.1	1.36	1.74	1.70	3.15	31.3
Dom. Tar. & C.	16¼	7¼	12⅝	7½	8¾	+14.8	0.74	0.53	0.40	4.57	16.5
Foundation Co.	15⅞	10	14⅜	11	14⅜	+19.8	1.30	0.96	0.60	4.17	15.0
Gypsum Lime & Al.	25¾	21½	39	32	86	+7.5	3.67	3.57	2.00	3.56	14.0
Imp. Varnish ..	29	16	23	17	21	+5.0	*2.65	*2.46	1.20	8.71	6.1
Sher.-Williams .	30	19	27	19	30	+37.9	*1.53	*4.24	1.40	4.67	7.1
Stand. Paving .	18¼	12¾	22	17½	24	+33.3	2.41	3.23	1.50	6.25	7.4

Note: Figures have been adjusted for stock splits where applicable.
*Figures are for the 1952 and 1953 fiscal years, ending in the case of Imperial Varnish and Sherwin-Williams on August 31; for Canada Cement on Nov. 30; for Building Products on Dec. 31.

B.C. Telephone System Grows

British Columbia Telephone Co. spent a record $15 millions in 1953 on expansion and improvement of facilities, and plans a further large program this year, Winfield S. Pipes, vice-president and general manager, reports.

Number of phones in service was increased by a record 21,555 last year, not including 4,188 phones added to the system as a result of the acquisition of Kootenay Telephone Co.

Last year, the Mission and Abbotsford systems were converted to automatic operation. Preparations were made for conversion of eight other systems, seven scheduled to be ready within 12 months. A $3 million automatic installation went into operation in North Vancouver Jan. 3. Others to be completed this year include Albion, Belmont and Colquitz in the Victoria area; Richmond, Steveston and Fairmont in the Greater Vancouver area; and Cloverdale in the Fraser Valley.

A major addition to Vancouver's Marine-Pacific-Tatlow system, to be ready before the year-end, will make it possible to transfer a large number of Hastings phones to dial operation.

A $7 million project is under way for complete conversion of the New Westminster system by the end of 1955. Other similar projects in the company's program include automatic systems for Cranbrook, Kimberley, Youbou and West Vancouver, equipment for which is on order, and a fourth unit for Victoria.

5 Million Bbls. '54 Oil Target For Saskatchewan

From Our Own Correspondent

REGINA—Crude oil production in Saskatchewan may pass 5 million barrels this year, provincial Resources Minister J. H. Brockelbank predicted.

In 1953 oil production was about 2.7 million barrels. Production in 1951 was 1 million barrels and in 1952, 1.7 million.

Mr. Brockelbank said a proposed pipeline to the Minneapolis-St. Paul area would provide a market for the medium and heavy crudes which could be produced from many Saskatchewan wells now capped.

Last year $50 millions was spent on oil and gas exploration in Saskatchewan with 672 wells completed, 300 of which were potential producers.

ANNOUNCEMENT

Reginald H. Line, President Kelvinator Of Canada announces the appointment of Paul E. Flanders as General Manager, Kelvinator Sales Corporation Limited. In this capacity Mr. Flanders will have the responsibility for the distribution and sale of all Kelvinator Household Appliances through the Corporation's Zone offices and Dealer organization across Canada. He comes to Kelvinator after eighteen years with Refrigeration Discount Corporation, Detroit (a subsidiary of Nash-Kelvinator Corp.), where he held the position of Sales Manager.

Time for Reappraisal

In recent months the trend toward cheaper money in the New York, London and Canadian markets has resulted in important changes in high grade bond prices.

In the light of this trend, investors in government, municipal and high grade corporation securities will appreciate the need for a reappraisal of their holdings. In many cases it may be possible to make advantageous changes in security portfolios.

Our organization, with a background of 49 years' experience in Canadian securities, will be glad to discuss your holdings and your investment policy with you. Your enquiry, which involves no obligation, will receive prompt attention.

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This booklet describes practical methods by which you may make your dollars work harder for you in terms of income and capital gain, and yet maintain the margin of safety your circumstances require. Illustrated in the booklet are example investment portfolios for a businessman, a doctor, a teacher and a widow. You will find that the principles used in establishing these portfolios can be successfully applied by any investor in building a suitable investment program.

We shall be glad to send a copy of this booklet to you with our compliments. Just telephone or write our nearest office for a copy of *"To Help You Share In Canada's Growth"*.

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Total Assets under administration are at a new high of $128,309,399.

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COMPANY REPORTS

To assist readers in appraising and comparing company financial statements, The Financial Post has a uniform method of presenting corporation accounts. Variations from the companies' published reports are footnoted.

Insurance

SOVEREIGN LIFE ASSURANCE CO. in 1953 celebrated its 50th anniversary and established new high marks in new insurance issued, insurance in force and total assets. New insurance issued was $20.5 millions, up almost $1 million, while insurance in force reached $131.7 millions. The company had 59,826 policyholders.

Total income was $4.7 millions, up more than $500,000, new high records being set by premium income and annuity consideration, and investment income.

Policy payments also were higher at $1.4 million and $177,366 above the 1952 figure. Of the 1953 total, $416,696 was paid out on death and disability claims and $978,861 to living policyholders.

Total assets rose to $25.9 millions, up $1.9 million. Mortgages at the end of 1953 were 28.1% of total investments, bonds and debentures 53.8% (common and preferred stocks 10.9%). Mortality claims showed an increase due substantially to an unusually large fatal accident experience in 1953 and the incidence of heart diseases. Otherwise, mortality experience was normal.

	1953 $	1952 $
Insurance in force ..	131,748,817	121,506,627
New insurance	20,585,947	19,604,671
Total income	4,739,320	4,203,189
Premiums	3,256,827	3,057,789
Ints., rents, divds.	1,049,065	949,522
Other income	433,428	195,878
Policy payments ...	1,395,559	1,218,193
Expenses	1,322,935	1,094,196
Ledger assets w/d ..	59,964	.....
Deposits withdr'n ..	178,848	175,384
Incr in net ledger assets	1,867,794	1,700,747
Sh'holders' divds. ..	14,700	14,700
Liabs. to pol'holders incl actuarial res.	23,800,665	21,945,731
Other liabs.	215,963	174,424
Prov. for pol. divds.	297,020	289,194
Sp reserves	774,704	752,098
Liabs. to sh'holders	230,095	230,095
Total assets	25,963,022	23,993,783
Free surplus	646,575	626,241
Interest earned	4.32%	4.38%

OUR ACTIVITIES IN 1953

Over $110,000,000 of Investment Security Transactions in the past year

We were either the sole underwriters or were among the members of underwriting Syndicates for the following issues:

Province of Quebec
Province of Manitoba
City of Sherbrooke
City of Thetford Mines
City of Verdun
City of Joliette
Town of Val d'Or
Town of Arthabaska
Town of Bedford
Town of Courville
Village of Pointe au Pic
Municipality of North Stukely, Eastern Part
Parish of St. Joseph de Riviere des Prairies
The Protestant School Board of Greater Montreal
School Commission of Charlemagne
School Commission of L'Assomption
School Commission of St. David d'Escourt (Temisc.)
School Commission of Cap-des-Rosiers
School Commission of St. Eusebe (Temiscouata)
School Commission of St. Thecle (Laviolette)
School Commission of St. Marguerite-Marie (Matapedia)
Quebec Telephone Corporation, Series "A"
Protestant School Commission of Shigawake (Port Daniel)
School Commission of Iberville
School Commission of St. Foy
School Commission of Cap d'Espoir
School Commission of the Parish of St. Hilaire
Trustees of the Parish of St. Eugene de Rosemont
Parish (Fabrique) of St. Robert Bellarmin
Parish (Fabrique) of St. Francois-Xavier du Bassin, Iles de la Madeleine
College des Eudistes
The Roman Catholic Bishop of Timmins, Series "B"
Soeurs de Sainte-Marie de Namur, Ottawa
Corporation de l'Hopital de Coaticook
Reddy Memorial Hospital
St. Justine Hospital
Montreal Metropolitan Commission
Sylvio Marceau Inc.
Show Mart Inc.
General Motors Acceptance Corporation of Canada Limited
Wm. Stairs Son & Morrow Ltd.
Aluminum Company of Canada — 2nd Prof.

We have also participated in the following issues:

Government of Canada 2%, 2¼%, 2¾%, 3%
Province of Nova Scotia
Town of Riviere du Loup
Municipality of Petite Riviere
Hotel Dieu du Sacre-Coeur de Jesus, Dolbeau, Que. Series "B"
Hydro Electric Power Commission of Ontario
Credit Foncier Franco-Canadien
The Bell Telephone Company of Canada
Traders Finance Corporation Limited
Industrial Acceptance Corporation Limited
Maine Turnpike Authority
Phillips Electrical Company (1953) Limited
Aluminum Company of Canada — common

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for ***PALISADOES AIRPORT, JAMAICA, B.W.I.***

Tenders are hereby invited from dredging contractors for the land reclamation involved in the construction of new runways at the Palisadoes Airport, Jamaica, British West Indies.

Contract documents may be obtained from The Director of Public Works, c/o Public Works Department, Half Way Tree, Jamaica, B.W.I. upon payment of a deposit of £50 sterling which will be refunded upon receipt of a bona-fide tender in sealed envelope marked 'Palisadoes Airport, New Runways' accompanied by certified cheque in the sum of £1,000 sterling.

The tenderer's bond should be addressed to The Director of Public Works, c/o Public Works Department, Half Way Tree, B.W.I., to reach him not later than 60 days as from February 2nd, 1954. This sum will be refunded to the unsuccessful tenderers and to contractors whose tenders may be accepted upon completion of the contract documents.

It is a condition of the tender that the tenderer state the name of dredge and size and horsepower of the main pump and the horsepower of the cutter mechanism and name of comparable jobs performed in the past.

The Government of Jamaica does not guarantee itself to accept the lowest or any tender.

Signed,
Colonial Secretary,
Government of Jamaica.

MANAGED INVESTMENT

Compton's Manager Sees More Selective Buying

A trend toward more selective buying by investors is evident from a day-to-day survey of transactions on both the Canadian and New York stock markets, says Compton's manager.

A net increase of $10.25 in Compton's indicated annual income was made as a result of switches during the month ended Feb. 15, despite a reduction in the dividend rate of one of the stocks held in the Compton portfolio.

Compton's Manager Says:

A further capital investment in common stocks and in base metal shares and a moderate decline in holdings of preferred stocks are shown in a review of the Compton portfolio for the month ended Feb. 15. Here is a summary of transactions made during the month:

PURCHASES

25 shares	Hiram Walker-G. & W.	
25 "	International Nickel	
25 "	Abitibi P. & P.	
25 "	Distillers Corp.-Seagrams Ltd.	
25 "	Powell River Co.	

SALES

30 "	Can. Wirebound Boxes Cl. A	
25 "	Gypsum, Lime & Alabastine	
20 "	Montreal Locomotive	
15 "	National Steel Car	
100 "	D. Stuart Oil	

On the switches completed during this period, Compton's annual income was increased by $40.25. However, a downward adjustment was made when Cockshutt Farm Equipment declared a quarterly dividend of 10c per share payable March 1; previous rate was 25c per share per quarter.

Thus, Compton's indicated annual income is now $1,188.75, a net increase of $10.25 over the previous month.

From a day-to-day survey of the transactions on both the Canadian and New York stock markets, it is evident that investors are becoming more selective in their buying.

During the period under review, the Toronto Stock Exchange industrial index rose from 318.15 on Jan. 15 to 326.56 on Feb. 15, an increase of 2.7%. Here is a comparison of the principal Canadian and New York indices:

	Feb. 15	Jan. 15
T.S.E. Industrials	326.56	318.15
T.S.E. Golds	74.63	71.04
T.S.E. Base Metals	139.96	141.49
T.S.E. Western Oils	94.67	91.36
M.S.E. Pulp & Papers	828.11	779.67
Dow-Jones Industrials	292.55	288.72

During the month ended Feb. 15, Compton received no investment income. After the usual monthly withdrawal of $60, his cash account was reduced to $125.09.

The Compton Account Now Stands

No. of Shares		Cost p. sh. $	*Mrkt. p. sh. $
	Common Stocks		
100	Abitibi Pwr. & Paper	12.76	18⅜
25	Aluminium Ltd.	40⅜	51¼
25	Can. & Dom. Sugar	19½	17¾
20	Can. Packers B	30¼	31½
25	Can. Pacific Rlwy.	24.69	23½
50	Cockshutt Farm E.	9.08	8
25	Distillers-Seagrams	29.60	30
50	Great Lakes Paper	17¾	22¾
75	Powell River	21.39	23½
50	H. Walker-G. & W.	42.56	55
	Preferred Stocks		
50	Abitibi Pwr. & Paper	25.00	26⅜
120	York Knit. Mills A	7¾	2½
	Mining Stocks—Base Metals		
25	Consol. Smelters	17	22½
25	Hudson Bay M. & S.	54½	40
50	International Nickel	40¾	37
	Mining Stocks—Precious Metals		
15	Kerr-Addison	16¼	17⅜
5	McIntyre Porcupine	64.35	57
100	Teck-Hughes	3.90	2.45
Cash			$125.00
Curr. Market Value of Fund			$18,672.32
Prospective Annual Income			$1,188.75
Aver. Yield on Original $10,000			11.89%
Aver. yield on current market value			6.31%

*Bid price Feb. 15, 1954.

Succession Duty Claimed Fairer Than Estates Tax

Suggestions that the Canadian Government might replace its present succession duty by an estate tax were criticized by President O. B. Thornton at the annual meeting of Montreal Trust Co.

A succession duty or inheritance tax is levied on property passing to each beneficiary without regard to the size of the estate, with a lower rate of duty payable if beneficiaries are members of the deceased's immediate family. An estate tax is a percentage of the value of each estate, with the rate graduated upward as the estate increases in value.

"Who would suffer most from the imposition of an estate tax?" asked Mr. Thornton. "Unfortunately, it would be the widows and children of the men of modest means. I firmly believe that the taxes on these estates should be reduced in recognition of the needs of the heirs and their close relationship to the deceased.

"Admittedly, it would be somewhat easier for governmental authorities to calculate an estate tax, but should we sacrifice the principles of equity to ease the work of the tax collector?"

Montreal Trust's 1953 report, presented at the meeting, said that an offer to purchase the stock of Maritime Trust Co., Saint John, N.B., had been made and its acceptance was expected; that Montreal Trust intends to take over the business and undertakings of Northern Trusts Co., control of which was acquired in 1948; and that company had become associated with Trust Corp. of Bahamas Ltd. and is participating actively in its management.

Net profit of $544,342 or $1.36 a share was reported, up 11.5% from $488,170 in 1952. Assets under administration increased by $30 millions. Year-end total of guaranteed deposits was down somewhat on the year.

Offer Debentures Union Acceptance

A new issue of $1 million 5½% sinking fund debentures, Series C, due March 1, 1974, of Union Acceptance Corp. is being offered by Bankers Bond Corp. Ltd. and W. C. Pitfield & Co. The debentures, offered at $99 to yield 5.58%, are meeting an excellent reception, according to underwriters. Proceeds are to be used to provide additional working capital.

Sinking fund requirements provide for retirement of $30,000 principal amount each year from 1955 to 1973 inclusive.

Union Acceptance Corp. founded in 1944, finances installment purchases of consumer, commercial and industrial products, mainly automotive products and electrical appliances. Branch offices are located in Toronto, Hamilton, Ottawa, London and Sudbury. A wholly owned subsidiary, Union Finance Co., operates the personal loans division.

Notes outstanding at the end of 1953 totaled $12,881,000. Gross income last year was $2,109,000.

Company's present policy is to continue to expand its Ontario operations; longer-term plans include expansion into other provinces.

Capitalization outstanding on completion of present financing will consist of $7.9 millions demand secured notes; $1 million term secured notes, 5½%, due 1968, Series A; $420,000 Series A 5¼% s.f. debentures due 1961; $449,000 Series B 5½% s.f. debentures due 1970; $1 million Series C 5½% s.f. debentures due 1974; 53,800 60c cumulative redeemable s.f. preference shares, par $9; 25,000 6% cumulative preference shares, par $20; and 114,612 n.p.v. common shares.

Elect Fox President Of Great Lakes Paper

C. J. Warwick Fox was this week elected president of Great Lakes Paper Co. Appointed vice-president and general manager last October, Mr. Fox will continue to hold the latter post. The new president has been active in the pulp and paper industry for 25 years.

Mr. Fox succeeds W. Earl Rowe, president and general manager since 1938, who remains a director. He is a brother of Percy M. Fox, chairman of Great Lakes' executive committee and president of St. Lawrence Corp. They have had an interest in Great Lakes Paper for some years.

Financing, Expansion Planned By Northern Quebec Power Co.

MONTREAL (Staff)—Northern Quebec Power Co. is planning substantial new financing to help pay for a fresh expansion program.

The company has applied to the Provincial Electricity Board for permission to create, issue and sell $1.5 million 5½% first mortgage series "B" bonds, $2.5 million 5½% cumulative redeemable sinking fund preferred shares, and 12,500 no par value common shares. The bonds would be dated March 1, 1954, due March 1, 1974, and payable in Canadian currency.

Proceeds would pay for an expansion of the company's Quinze River power plant, and would also be used for other capital expenditures and to provide funds to reimburse borrowings. Northern Quebec completed a 34,500 hp extension to the plant in 1951 and it is understood that the new addition will probably be about the same size.

Assuming the three new issues are approved by the board, the financing will probably be completed in March, with the preferred shares to be offered publicly.

Northern Quebec is a subsidiary of Canada Northern Power Co., which is controlled by Power Corp. of Canada. All of its 200,000 outstanding common shares are held by Canada Northern.

In connection with the financing, the Board is also asked to approve conversion of Northern Quebec's presently outstanding 10,000 5% cumulative redeemable $100 par preferred shares into 10,000 3%-6% cumulative redeemable $100 par second preferred shares. This $1 million issue is understood to be entirely held by Power Corp. of Canada.

Dom. Oilcloth Prospects Good

MONTREAL (Staff) — Prospects are that 1954 will be another good year for Dominion Oilcloth & Linoleum Co., shareholders were told at the annual meeting. It is expected to compare favorably with 1953 when, with the exception of 1950, results were the best in the company's history.

Net profit of the company for the year ended Oct. 31, 1953, totaled $1,875,631, up 26.2% from the previous year's $1,486,000.

Following the meeting, it was announced that A. F. Baillie, formerly president, has been elected chairman of the board. New president is K. B. Roberton, formerly vice-president and managing director. Other changes included the appointment of J. G. Roberton, formerly manager, to the post of vice-president and managing director.

New Regina Plant For Dom. Bridge

From Our Own Correspondent

REGINA—Dominion Bridge Co. has completed a $40,000 steel pipe coating and wrapping plant here which it will use to complete its $3 million contract for the supply of steel pipe for the city's Buffalo Pound lake water project.

The pipe is to be built from British steel at Dominion's Vancouver plant and finished in Regina. Delivery to the city will begin April 1 and be finished by Sept. 15.

MARIEVILLE, QUE. School Commission has sold $39,500 3% bonds due 1955-57, $40,000 4% due 1958-64 and $30,500 4½% due 1965-74, to L. G. Beaubien & Co. at 98.37. Net cost 4.46%. Proceeds for repairs to Academy and construction of staff residence. Provincial grant of $70,462 payable in five annual installments. Net funded debt at June 30, 1953, $108,500. Population 3,336.

ANNOUNCEMENT

J. GODFREY SMITH

M. Aylsworth, president and general manager of The Huron & Erie Mortgage Corporation and The Canada Trust Company has announced the appointment of J. Godfrey Smith to the Guelph Advisory Board of these companies. Mr. Smith is president of the Federal Wire & Cable Company Ltd. and a director of the Northern Woodstock Rubber Company Ltd.

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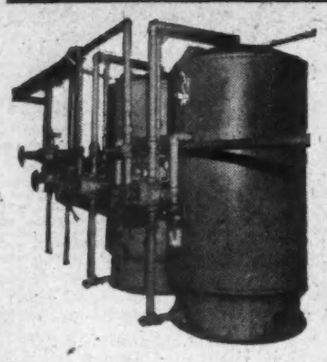

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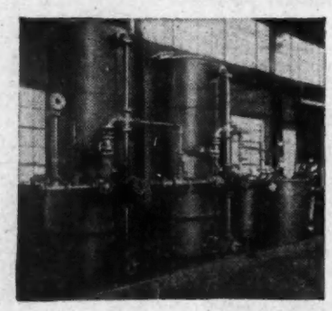

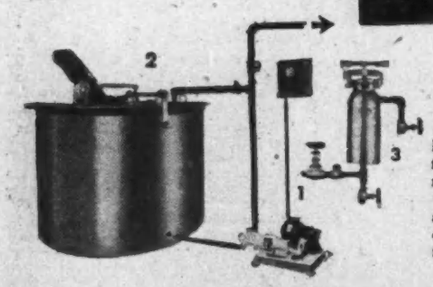

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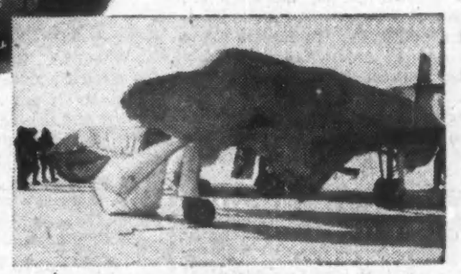
for use . . . at 60° below

The CF-100 with its ORENDA's was meant to fly and fight in the Arctic. So that's where it's been tested. In the bitter wind-searing cold, engines must start, controls move, radio be clear, guns fire, and the pilot's hands and feet be comfortable within minutes after a "Barren Land" alert.

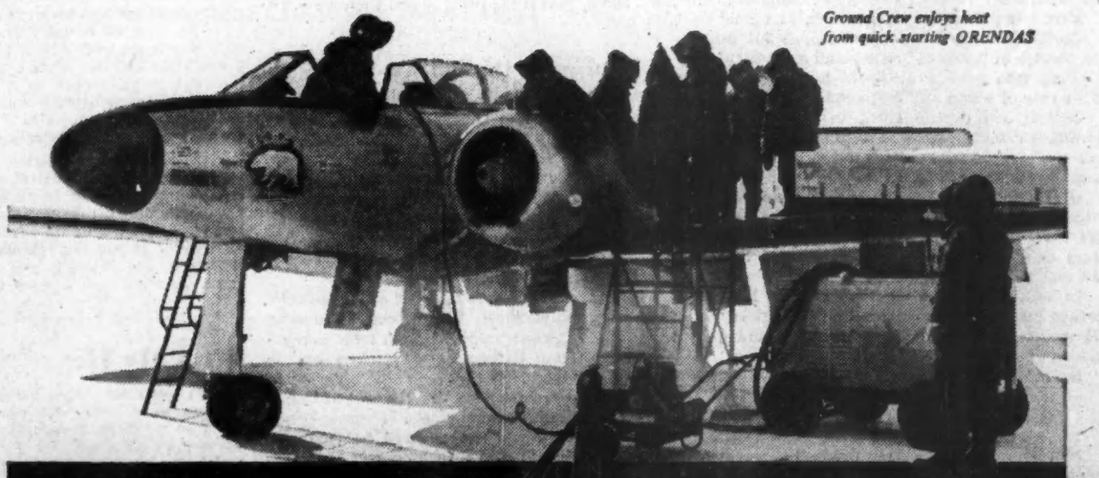
It's routine now to leave a CF-100 out overnight with but a light wrap to keep the wings clear of frost. After a 15-hour "cold soak" in temperatures of 30° to 60° below they pull the wraps, flick switches and take off. If it's not cold enough at Namao, near Edmonton, they fly non-stop to Fort Churchill on Hudson's Bay.

Defender against attack through the Arctic, the CF-100 is in squadron service with the R.C.A.F. at strategic bases. On daily flights, it probes the perimeter of those areas most likely to need watching.



This CF-100 has had overnight "Cold Soak".

CF-100, WORLD FLIGHT RECORD—*the 2100 miles from Vancouver to North Bay was recently flown non-stop by a CF-100 in 3 hours, 50 minutes at 550 M.P.H. Piloted by F/L M. Kobierski with F/L D. Turner, Navigator, this was one of many tests performed by the CF-100's of 445 All Weather Squadron, R.C.A.F., Uplands, Ontario. It is the longest non-stop flight completed by a fighter aircraft.*



Ground Crew enjoys heat from quick starting ORENDAS

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We Can't Wait For Jobs

To a labor delegation at Ottawa a few days ago Trade Minister Howe stated that laid-off farm implement workers must be prepared to shift to another industry. That blunt advice may not help to win votes for Mr. Howe in the next election, if he changes his mind and does decide to run again. But it was certainly time that someone like Mr. Howe did some plain speaking on unemployment.

No country, and especially one like Canada, which depends so largely on world markets, can afford to keep on producing regardless of changes in demand. We can't force our own farmers to buy more combines, or cultivators or tractors, let alone farmers in other countries.

As Mr. Howe clearly pointed out, we have temporarily caught up with the war-created backlog of farm implement orders. Since 1945 farmers almost everywhere in the Western world have re-equipped their farms For some time they can't be expected to keep buying at the rate of the last five years, and particularly just now when markets for some of their own produce are somewhat uncertain.

The farm implement industry is not the only one in the country facing adjustment. Coal mining is another. Oil and gas have been cutting into coal and will likely cut still further in the immediate future. Only cheaper coal through more mechanization of mining can hope to meet that competition. And that will mean still fewer manual jobs. The same thing is true to a lesser degree of other industries where new or better products, cheaper substitutes, or new processes have forced changes in consumer demand.

We can't legislate against such changes. They have been going on ever since the first man crawled out of a cave and decided to build himself a house. They will continue to go on. In the long run we all benefit. Virtually all the jobs we work at today were unknown a century back. Most of the things we make and use have replaced something else.

It's not easy or painless for a man to switch from one line to another and especially if it means selling his home and moving his family to another locality. To a considerable extent, however, it is this reluctance that is responsible for some of the present unemployment. People will stay in one locality hoping for an improvement instead of transferring to other areas or newer industries. But some transfer there must be if this country is to develop and the new industries be manned.

Fortunately in Canada there are still jobs available. There is work waiting to be done on our new frontiers. We may have to work a little harder. We may not be able to pick and choose as we have been doing in the boom period since the war. But this country was built by men who were not afraid to go after jobs. It cannot hope to continue to prosper and sell its production on the markets of the world if we sit back and wait for the jobs to come to us.

Our Day Is Here

This time of year, Stratford, in the middle of Southern Ontario's snow belt, usually spends most of its time digging out.

But this year it's digging in — to raise $40,000 for its Shakespearean Festival. Altogether, a campaign to raise $120,000 across Canada has been launched.

There's no income until the houselights dim on a new season. And the Festival needs working capital. Once raised, it should be self-perpetuating. At the moment, individuals are underwriting costs.

This summer, James Mason stars in the Shakespearean plays, Measure for Measure and The Taming of the Shrew, and in the Grecian tragedy, Oedipus Rex.

The Festival's impact goes far beyond the Avon's banks. Already it has given fresh hope to the arts in Canada. No nation of people can long survive on mighty factories, wheat fields, oil wells and uranium alone. No people can long be remembered for just their material treasures. If Canadians want to mark a place in civilization's story, it is through projects like the Festival that it will be done.

What happened in Stratford in A.D. 1953 is proof that the flowering of this country's cultural life is no longer "far off," or "soon," or "coming."

It's here.

Not The Role But The Players

Just before he left on his tour of the world Prime Minister St. Laurent made rather a surprising statement about the Senate. He seemed to suggest that there was no serious demand for Senate reform, that the Senate had important work to do, and that it had been doing that work well.

That the Senate has important work to do in reviewing legislation passed on by the Commons few people will deny. But was the Prime Minister justified in the rest of what he had to say? We don't think so.

The very real and widespread doubt in the country today is not about the proper role of the Senate, but whether that body as at present constituted, can play its role properly. All but a handful of the current Senate members are Liberals, and most of them, at one time at least, were quite active politically. In far too many cases appointment to the Senate has been simply an award for past political services rendered.

Under such circumstances how can any Senate be expected to review, revise and approve legislation with any effectiveness? The upper house has become merely an echo of the Commons.

To do an efficient job the Senate must be independent of partisan considerations, and representative of the best interests of the country as a whole, not just a political party.

If something is not done soon to give us that sort of a Senate, then pressure will surely grow for its abolition entirely. It's not much more than a fifth wheel of government today.

We still think the Senate is a good place to use the brains and experience of Canadians who in nonpolitical ways have made a more than ordinary contribution to our national life.

Deeper And Deeper

We've just come upon a summary score-sheet of the mess the Americans have got themselves into with their farm price support program.

Here's the situation on a couple of items:

Uncle Sam has bought and stored 261 million pounds of "surplus" butter and more surplus is piling into government-paid-for warehouses at the rate of seven million pounds a week.

Getting rid of the stock in the next few months is essential because despite refrigeration and some turnover in stock most of it is due to go rancid before long.

U. S. retail butter prices are now more than twice margarine prices. Americans are eating less than half as much butter as they did 20 years ago. Per capita consumption for butter and margarine is now about equal.

In addition to butter, Uncle Sam has in storage under the same price support legislation 271 million pounds of Cheddar cheese and 449 million pounds of dried milk.

Isn't politics wonderful?

Where Ignorance is Bliss

Municipalities are required to publish amendments to by-laws, certain notices referring to elections and so on, in local papers.

They publish the items, of course. But these notices are usually buried in columns of tiny type or in almost hidden places. Anyway, they become as little eye-catching as a codfish in a pool of mermaids. Worse still, they require a lawyer or perhaps a Supreme Court Justice with the county law library at hand to figure them out. Perhaps even he is baffled when he sees something like this:

" . . . That Section 12.2.3 be, and the same is hereby deleted, and Sections 12.2.4 and 12.2.5 be renumbered as Sections 12.2.3 and 12.2.4. respectively . . ."

Particularly disturbing are those obscure little items which tell you about the last day to get on a voters' list or the end of the open season for neighbor's cats. And you never hear tell of them until you lose your vote and old Knucklehead is elected by a majority of one, or you've been clamped in irons for bringing down that yowling cat next door.

The law is the law. Ignorance is no excuse. But wouldn't municipalities be serving the public interest better by publishing at the same time as the official notices some information in simple language? Wouldn't "By-Law Changes, Here's Where" means a lot more than "In the matter of Section 390 of 'The Municipal Act' (R.S.O. 1950, Chapter 243)." Or wouldn't "Is Your Name on Voters' List?" or "Last Day of Open Season" have a lot more meaning?

Making it easier for us to fulfil our duties of citizenship properly is important to everybody.

Adviser Or Broker?

In a circular letter to potential investors, a registered Ontario broker-dealer reports what he describes as a "special situation" of a penny issue listed on the Toronto Stock Exchange. What those who see this letter will find more unusual than the location of the prospect is the insistence of the writer that he has given up his brokerage business. "Please do not send any orders to me," he writes. Stock should be bought, he urges, through regular brokerage channels.

Surely if a broker-dealer is to be permitted to enjoy registration and the right to advise the public on the purchase of shares, he should be required to provide some facilities for the execution of orders. Otherwise he has no clients and hardly a justifiable right to enjoy broker-dealer registration.

If he wishes to advise on stocks—and does not care to conduct a broker-dealer business—let him apply for registration as an investment adviser. He will then, of course, be required to reveal his interest in any "deals."

We do not think that there is a place for the nonworking broker-dealer to act as investment adviser.

To Sell We Must Buy

When B. C. Electric Co. placed a large order for electric cables in the United Kingdom the other day it got a pat on the back from the lumber and fishing industries of the Pacific province. And though there is little apparent connection between fishing and lumbering on the one hand and power distribution on the other, there is a good sound reason for that pat on the back, just the same.

B. C. industrialist H. R. MacMillan explains it this way:

"British Columbia's present annual volume of output of lumber and salmon cannot be maintained unless large quantities can be sold yearly to the United Kingdom. British purchases of lumber and salmon, and other goods from Canada are limited by British capacity to earn dollars.

"It will be encouraging in the United Kingdom and here to see the B. C. Electric taking a lead in buying British goods. By so doing it is assisting to maintain employment in the area from which it draws its revenue."

British Columbia has learned, as all Canada must learn, that if we want to sell then we must also buy.

Quebec's Double Taxation

The people of Quebec can now see how much it costs to have Mr. Duplessis defending what he thinks are provincial rights against the "centralizers" at Ottawa.

By last week's provincial budget his government plans to extract $22 millions in a personal income tax. Quebeckers can claim a credit for part of the levy against federal tax liability. But the rest of the blow comes out of the grocery money.

The province plans to use part of the revenue to help the universities. This comes at the same time that Duplessis prohibits them from accepting money from Ottawa as the universities do in other provinces.

Of course, Quebeckers, like the rest of Canadians, contribute to this Ottawa revenue — but unlike the rest, are not allowed to enjoy it. They are double taxed to provide for the same causes.

Perhaps it's thought that companies will make up the difference in their payrolls so all Canadians are treated alike. But isn't the natural reaction going to be to look elsewhere where there's no need to pay the extra — or never to settle in Quebec in the first place?

Some people want Ottawa to allow Quebec residents a tax credit for the full amount paid. This would be complete folly. There is no reason why the people of Canada's other provinces should contribute extra so Mr. Duplessis can have his sport.

Napier Moore's

Scratch Pad

A LARGE ENVELOPE full of clippings of newspaper stories on the arrival in Sydney, Australia, of the Queen and her consort, airmailed from Canberra, was delivered to our Toronto address within four days, which seems to us to be astoundingly fast, even allowing for the fact that it's a jet age and our postman walks fairly rapidly.

Included with the clippings were a number of human interest stories sent by Australian correspondents from New Zealand when the royal couple were in that country. And some of the best of them concern the Duke of Edinburgh, who, while careful never to steal the show, seems to have enlivened a lot of proceedings.

At Napier, when the brothers Ivan and Godfrey Bowen, New Zealand's champion sheep shearers, asked the Duke if he'd like to try his hand at shearing, he grinned broadly and said, "No, thanks, I might nick them, and we've had enough mutton this tour."

At Christchurch, after the mayor nearly got a black eye when he banged into a carved box being presented to the Queen, the Duke congratulated him, saying: "You've made history. It must be the first time a mayor has been wounded in action during a civic reception to the Queen. I'll see that you get a wound stripe."

• • •

WHEN A CANADIAN, adding a tremendous amount of hard work to a great talent, shines brilliantly in a firmament studded with bright stars, we like to make a note of it. Via Columbia Artists Management Inc., of New York, we learn that from October to May our own Lois Marshall will have had forty major engagements in the U. S., appearing in New York with the Mendelssohn Glee Club, at the Ann Arbor May Festival with the Philadelphia Orchestra, with the Cincinnati Symphony at the Cincinnati Festival, and two performances at the Bach Festival in Berea, Ohio.

Incidentally while we knew that the Canadian soprano had triumphed in Boston earlier this winter, it wasn't until we received CAM's broadside that we realized how completely she had conquered the toughest critics of that city. Calling her debut "sensational," John Wm. Riley, of the Boston Globe, said that "even a search for superlatives does not furnish the materials to describe the testament of beauty which Lois Marshall displayed," adding that in her "America has its greater singer of 10, perhaps even five years hence." Klaus George Roy, of the Christian Science Monitor, said, "The Canadian soprano, not yet 30, seems destined to become one of the great singers of this era." And R.S.T., of the Boston Herald, said he had heard one of the finest sopranos in his experience.

• • •

THE OTHER NIGHT we encountered a type of Englishman we never believed existed outside of old-fashioned stage farces. It was in a well-known restaurant that his voice, loud and frightfully affected, smote our ears two tables away. It wasn't a question of eavesdropping. There was just no way of escaping the torrent. Over the cocktails he talked airily of shootin' and fishin'—grouse and salmon, you know. Then he got around to passports. This time he was traveling on a straight businessman's passport. Before, of course, he had always traveled on a diplomatic passport. Very tricky things. Lots of problems in diplomacy. With the steak and a drop of wine he really got going. He knew everybody. He knew everything, Winnie? "Failing steadily, old boy. I've said it for years. Now it must be obvious I'm right." Eden? "A fine chap, Tony. Lives by all the highest teenets (that's what he said)" . . . Butler? "Oh, Rab. Well Rab's a different type altogether; doesn't know what it's all about." MacMillan? "Ah, there's a fine fellow! Fooled the Socialists by building as many houses as he said he would. I said to him, 'Harold, old boy,' I said, 'you've made a hit with the Tories'."

He discussed American politics freely, warning that Eisenhower had better look out, as McCarthy was going to get him yet. As for Canada, well old boy, he just couldn't see Mike Pearson getting very far, though, mind you, Mike was quite a decent chap.

We gathered that he actually held some minor post with a U. K. government department. And we felt rather sorry for poor old Britain. The guests with whom we were dining also happened to be English. They got so mad that only a reluctance to embarrass the fellow's Canadian hosts prevented them from hurling something at him.

• • •

THE B.B.C.'s information department tells us of a Miss Gertrude Miller, whose duty it is to rule on the pronunciation of such words as Llanycrwys, Woolfardisworthy and Mouswald. If you say Hlannakrooiss, Woolzery and Mooss'l, you are all right. And it's such a relief to know this.

Stop Me If—

Mrs. Sharpe: "My husband has changed a lot since our marriage. I made up my mind about that. He eats out of my hand now."

Mrs. Brown: "Really! It must save you a lot of washing up!"

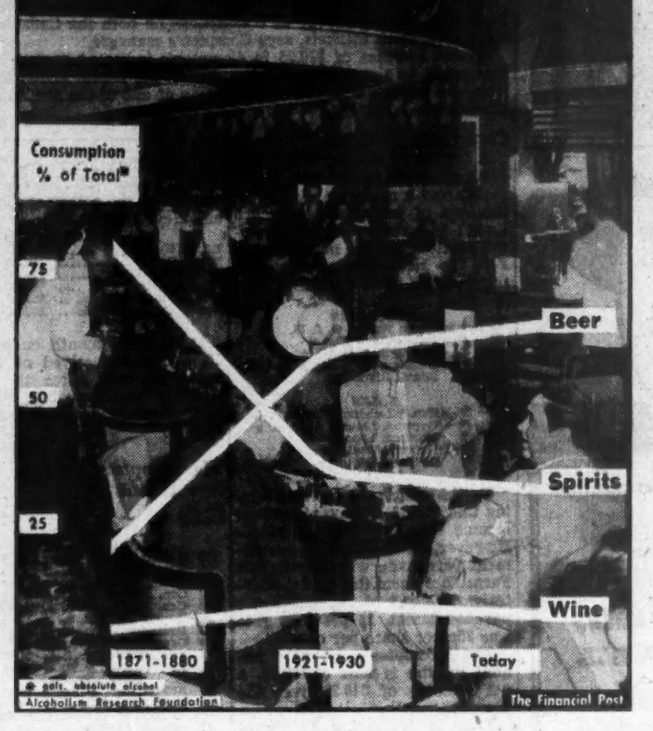
• • •

He had arrived home late, and was being told all about it by his wife. At last he lost his temper, too, and said a few things back.

- "I don't care," he said. "I mean exactly what I say, I'm a man who calls a spade a spade."

His wife snorted. "Maybe James," she said icily, "you do call a spade a spade, but you don't call a club a club—you call that working late at the office."

Drinking Tastes Change



Post Scripts

Leaves Tax Foundation

Monteath Douglas is moving on to another challenging job. April 1, he becomes the first director of the new Canadian Department of the National Industrial Conference Board.

Harvey Perry, who has been director of research of the Canadian Tax Foundation, succeeds him as director of that organization.

The National Industrial Conference Board has its head office in New York. It's a nonprofit fact-finding group with a wide reputation for responsible research in economics, business management and human relations. Douglas will be setting up shop to do similar work in Canada.

MR. DOUGLAS

At 45, scholarly, precise, serious-faced "Monty" is already an old hand at starting things from scratch. Seven years ago, he whipped together the Tax Foundation. Today, it's a husky association of 1,000 individual and 300 corporate members.

"New conditions of government call forth new institutions to deal with them," Douglas points out, "High government spending is one of those new conditions. And the Tax Foundation is a necessary reaction to it. Taxation has a lot of technical details that are hard for people to understand. Hence, it's mighty important that there's some group outside the government to give constructive criticism on an impartial, purely objective basis. You could call it a sort of balance wheel."

With the new NICB job, Douglas will have a lot of the same kind of work as with the Foundation. He'll be establishing a new agency for independent economic and business study in Canada. At first, he'll be in New York for some months learning methods and what has been done there which might be applied to this country. About a year from now he hopes to have a staff hired and an office either in Montreal or Toronto.

Before taking on the Tax Foundation, Monty Douglas was at head office of the Bank of Montreal, and during the war, was on leave of absence as associate director of the Washington Division of Canada's Wartime Prices and Trade Board.

His home was Kirkcaldy, Fife, Scotland, although he happened to be born in Manchester. At 18 he came to Canada, and a few years later graduated from University of Toronto in political economy in 1932. He joined the Bank of Montreal, and by 1937 was its first economist.

His wife, the former Muriel Howard, is from Montreal. They have two daughters, 16 and 14, and one son, 7 years.

Douglas loves to fish—wherever there's a wayward trout who might like to take the hint. In nonfishing weather he likes an evening with friends, a pipe, some classical music, and perish the thought—a tax journal!

Other reading? "Of course," says Douglas, "all kinds of it. But you can't call that a 'hobby.' It's just what any civilized person does any time he can."

• • •

Heads Vancouver Exchange

The new president of the Vancouver Stock Exchange, Scotland-born John McGraw, is no stranger to the inner councils of Canada's West Coast stock trading centre. He became a member of the exchange in 1929, one year after entering the investment business, and except for five wartime years has been a member of the management committee every year since. He has been vice-president several times and served his first term as president in 1933.

McGraw entered the investment field with a Vancouver firm in 1928 as a junior and thus got in on the big boom of that year and the one after. He picked the depression year of 1932 to go it alone and set up his own firm, Continental Investment Corp. He has been running that ever since except for five years in the aircraft business during World War II.

The aircraft sojourn came when Boeing Aircraft of Canada was set up and began producing from a plant at the Vancouver airport. McGraw went in as personnel manager and eventually became general manager at the Boeing plant, which turned out flying boats. When the war was over, Boeing closed its Vancouver plant and McGraw went back to the investment field.

McGraw came to B. C. when he was a year old, and doesn't want to leave. He had an opportunity to move to the East after the war, but decided against it. He believes that his adopted province is just beginning to grow.

As head of the Vancouver exchange for 1954 McGraw will have a first-hand view of the effects of the province's industrial expansion on the investment business. Industrial stocks are being added steadily to the exchange's listed section and McGraw believes that the industrials will be of greater importance than ever to the investment community on the West Coast as the province's secondary and basic industries grow.

• • •

Switched Careers

A man who intended to follow the accounting profession but ended up with a business college has just been elected president of the rapidly growing Edmonton Chamber of Commerce. He is Allan Douglas McTavish, owner of the McTavish Business College of Edmonton.

MR. McTAVISH

McTavish, now in his 40th year, was born in Edmonton and got all his education there. After high school he spent one year in the college founded by his father, then went on to the University of Alberta, graduating with honors in 1936. His summers at this time were spent in the usual run of part-time jobs, including stenographic work, substitute teaching and acting as lifeguard.

What was supposed to be a career in accounting started in 1936 when he signed up with E. M. Gunderson, C.A., who at that time was opening the Edmonton office of Peat, Marwick, Mitchell & Co. Young McTavish passed the final examination in December, 1939, and became a chartered accountant a few months later.

At about that time J. C. McTavish had a heart attack and it was obvious that he could never work again. The choice for the son was whether to go on with accounting or take over the business college. McTavish Senior had started the college in 1905 and a good deal of sentiment was involved. The college was chosen and that decision has never been regretted.

During the war Allan McTavish served 14 months as a wireless operator - air - gunner with the RCAF. While he was doing so his wife, Margaret MacDougall, operated the business college and managed their growing family which now consists of four boys.

McTavish has maintained close and steady contact with his original profession. He was president of the Edmonton Chartered Accountants 1943-44 and appointed secretary-treasurer of the Institute of Chartered Accountants of Alberta in 1951. He was also president of the Business Educators' Association of Canada in 1948-49.

When business and family affairs permit his hobbies are photography and sailing a boat at Seba Beach.

What Others Are Saying

Editorial of the Week

Don't Talk Ourselves Into a Slump

Regina Leader-Post

Canadians have more savings today than ever before, and despite the winter unemployment their aggregate earnings are substantially higher than in any previous winter. The buying power is in existence to keep the wheels of our economy turning at high speed, and the expectation is that the winter unemployment will disappear in the spring with winter's snow and ice.

The danger zone of which labor should be conscious is not seasonable unemployment, but in labor's own demands becoming so extravagant that the goods they produce are priced so high that consumers will not pay them. It is not improbable that high labor wage demands have aggravated winter unemployment this year. Undoubtedly some of the factory layoffs as a consequence of high inventories of unsold products reflect a consumer resistance against high prices.

The solution lies not in adding to these costs by guaranteed annual wages. This inevitably would mean a reduced volume of sales, and increased unemployment, the two running together in a vicious circle. It lies rather in increased efficiency, and in reduced prices to attract buyers.

By adding its voice to the CCF depression-mongering, organized labor is doing its members a potential disservice. It tends to arouse consumer fears, to encourage them to hang onto their cash instead of buying. This could snowball into serious economic trouble by a drastic reduction in consumer demand. Among the first to feel it would be employees thrown out of work by a decline in the sales of the goods they produce.

Other People's Views

A GOOD MP may be worth $10,000 a year, says the **High River (Alta.) Times** but do we need so many of them? "The country would be as well and efficiently represented if membership at Ottawa were reduced by one third."

FEWER AND BETTER civil servants would give us far more government efficiency, thinks the **Midland (Ont.) Free Press.** "Ottawa offices need house-cleaning badly. There are still far too many clerks and stenographers stretching the coffee break into an hour-long siesta, and too many executives building up their establishments of junior servants as an excuse to boost their own salaries. The government that will tackle this problem will earn the undying gratitude of Canadian taxpayers."

QUEBEC'S new religious law is so outrageous that the Federal Government should intervene, declares the **Victoria Times.** "As in the notorious Alberta press law it should use its constitutional power to 'reserve' the Quebec law, suspend its enforcement and submit it to the Supreme Court for a test of its validity. For if it is valid the Alberta press decision apparently is reversed . . . All civil liberty is at the mercy of provincial governments and their police. Canadians will expect their National Government to protect them from these dangers."

RECESSION TALK is confusing in the view of the **Yorkton (Sask.) Enterprise.** "Some will tell you that it is already six months or so under way. While it is true that the sky does not keep raining dollars all the time, some facts or statistics of the year just ended would almost make one think it did. More Yorkton money was poured into the last Canada Savings Loan issue than ever before. Aggregate retail sales in Yorkton were never greater than they were in 1953. Already thousands of dollars have been prepaid on 1954 city taxes. You can find little or no skilled labor in the city unemployed. Farm returns remain high. There is no curtailment of buying by local business houses of spring and summer stock."

The Financial Post

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February 20, 1954

How Japan Would Expand Trade Here

Wants Credit, Needs Grain, Minerals, Oil

A Japanese trade mission to Canada; greater concentration on the Canadian market; Japan's need for credit arrangements with Canada — these were points emphasized by prominent Tokyo businessman, Tominosuke Imai, in Toronto this week on an extensive tour of Canada, U. S. and Europe looking for new trade opportunities.

Imai, president of Daiichi Trading Co., is an executive member of Japan's Chamber of Commerce and executive director of the Japanese Economic Federation, an organization of all the country's major industries.

His company was part of Mitsui Busan, the big industrial empire broken up after the war. Today, Daiichi Co. is an important buyer of Canadian wheat and barley, our two largest exports to Japan.

This week, Imai has been in Canada with two members of his company, expert grain buyers, Y. Ikeda, Tokyo and Y. Hosoya, from Daiichi's Portland, Oregon branch. Although the visit has no Japanese Government backing, Imai will report to Tokyo trade authorities on his talks with business, financial and government people in Canada and the U. S.

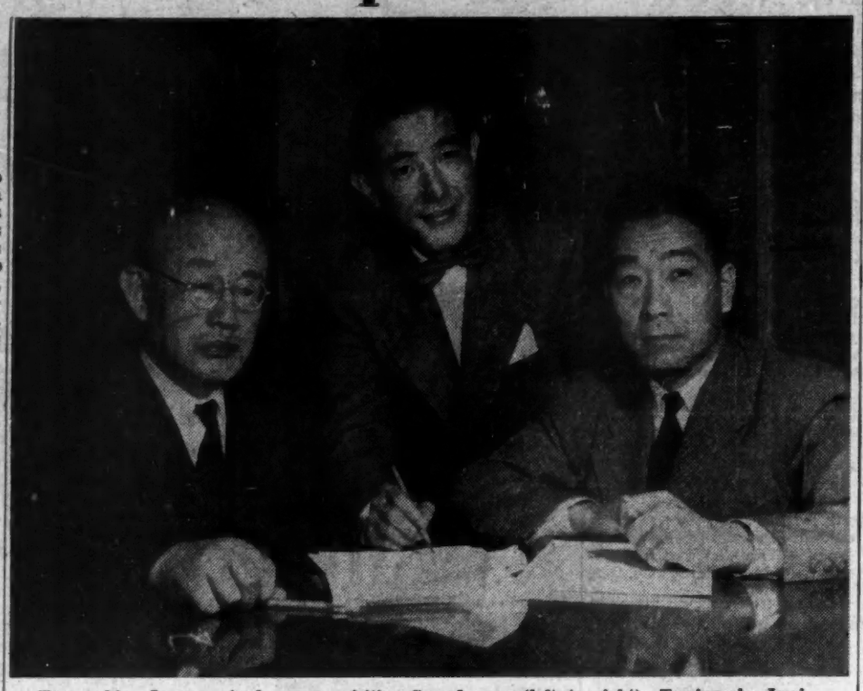
In his report he told The Post in an exclusive interview, he will urge that:

—The Japanese government send a full trade mission to Canada as soon as a trade agreement is signed.

—Despite Canada's small population, it's a market worth looking at. Japan "values any market whatever the size," this country's particularly, because Canada imports so many goods which Japan could supply.

—There is need for a credit arrangement between Canada and Japan, a more "convenient way to do business." Japan must pay for Canadian goods in dollars. Right now, despite the high quality of Canadian grain, several other countries, Australia, Argentina, Turkey, even the USSR, could supply Japanese needs, and all of them under easier payment terms.

Imai's party brings a new orientation to a Canadian's view of world trade, by pointing out that the cheapness of water transport puts Japan and Canada very close economically. There's a much larger potential trade for both countries, but little chance of balancing the current merchandise trade (now eight to one in our favor) unless, as Imai puts it, "Japan can sell Canada some big shipments of items like iron and steel products and cement."



Top ranking Japanese trade envoys visiting Canada are (left to right): Tominosuke Imai, president, Daiichi Trading Co. Ltd., Tokyo, Y. Hosoya, manager of Daiichi's Portland, Ore., branch, and Y. Ikeda, manager, Daiichi's grain department, Tokyo.

Market For Our Grain

Canada can expect, he says, to supply Japan with more grain, minerals and cellulose (for textiles), even petroleum crude which, in Japan, is in a competitive price range with Middle East crude.

Japan would be in the market, as well, for any potash which this country might produce in the future. She now buys large quantities from Europe as a fertilizer component for the intensive cultivation needed to support 86 million people on an area one-third the size of Ontario.

What about Japan's cheap labor — the bane of worldwide competitors?

It's still cheap by western standards, but much higher than prewar, says Imai. Today's laborer is unionized, has unemployment insurance, old age security, and the highest wages ever. But — "don't forget," says Hosoya, "Japanese per manhour productivity is low. While wage rates are mighty small compared to Canada's, the labor content of every product is considerably higher. As well, not counted in wage rates, but certainly part of production costs, there is the board and room provided in dormitories for many textile workers."

Prewar Practices

What is Japan doing to improve a prewar reputation for unfair practices and poor quality of some merchandise? "All commodities for export are inspected for quality by the Government before shipment," says Ikeda, "and industries like the toymakers have their own associations which check on quality."

Point was made on "Canadian confusion of quality with taste and style." In the case of textiles, a cheap quality is made for southeastern Asia which cannot afford any better. When this line happens to appear in Canada, it looks poor indeed. "I've heard complaints about our styling," says Hosoya. "We've been behind in a lot of our fashions. That must be improved."

The cold war and cutting off trade with China has been a hard blow to Japan. Everybody there hopes tensions will soon cool and the China trade be re-opened in quantity.

The party has special praise for technical assistance and the Colombo Plan in southeast Asia. Anything leading to higher living standards there increases demand for Japanese goods — and of course, would make it easier for that country to buy more from Canada.

But the benefit is complicated too. As other Asian countries develop industrially, Japan's own industry faces more competition in those areas.

"The one thing that Japan must do," says Imai, "is to elevate her technical standards. It must go on to higher levels of quality and efficiency."

U.S. Newsprint Appetite Growing Stronger for '54

MONTREAL (Staff) — U. S. newsprint consumption figures for January, to be available this week, were expected to show a small increase over the same period of 1953. This, despite the fact that there were only four Sundays in January, 1954, against five a year earlier. Thus the appetite of U. S. publishers, up 2.6% in 1953 over 1952, is continuing even stronger into 1954, as expected.

The gains shown last year and so far in 1954 have been chalked up despite a sharp swing to narrower column widths in U. S. newspapers. This, because it means a slightly lower amount of paper used per page, might have caused some concern among Canadian newsprint producers if demand had not been quite so buoyant. But thanks to a rise in the average number of pages per issue and higher circulation, it has caused little excitement.

The trend to narrower columns got rolling in 1953. It picked up steam fast and will likely continue through 195.. Last year, it's estimated that over 260 U. S. papers switched.

Figures aren't available on the tonnage of paper saved as a result of the changeover. It would depend on individual circulations and number of pages printed. But many of the big metropolitan dailies and Sunday editors were included in the group, so it was probably fairly substantial. The total should be even higher this year.

How Saving Made

The shift is from columns 12 picas wide (two inches) to 11.6 picas. Thus the maximum saving per page would be around 3%. In practice, it would probably be less than that, exactly how much varying according to the space between columns.

Actually, there are two ways of using the narrower columns to save on newsprint. Either the page size can be smaller or the total number of columns can be raised from eight to nine. The latter method means higher ad linage on the same amount of paper.

But because modern presses aren't designed to handle nine-column newspapers, almost all the publishers who have made the shift have stuck with the traditional eight-column width. Only nine or so in the U. S.—all small—have adopted the other method.

The changeover still has a long way to go, since there are 1,785 U. S. daily newspapers. But the feeling is that most of the larger papers will make the shift. Those with smaller circulations, may hesitate to change as it is a fairly costly business.

For technical reasons, it's thought that the 11.6-pica column is probably the minimum practical size. So the shift now under way will probably be the last and, fortunately, it is occurring when newsprint demand is still very strong.

Offsetting any drop in newsprint consumption due to narrower column widths in the U. S. have been a bigger number of pages per issue and higher circulation.

Big Rail Job Now Complete For Ungava

MONTREAL (Staff)—The "end of steel" has been reached on the 360-mile Iron Ore Co. of Canada railway from Seven Islands to Knob Lake.

The job is not yet finished. Ballasting is still to be done between Mile 230 and Schefferville, the new town at Knob Lake. But the back-breaking end of one of the biggest projects undertaken in Canada in some years is over with the rails now in at the northern terminus.

The necessary ballasting will be completed in the summer and the first shipment of iron ore should start rolling south to Seven Islands by August—right on schedule.

Meantime, work on the other phases of the big job goes ahead at a fast clip.

At Seven Islands, the docks have been completed and installation of the ore-handling equipment is scheduled to be finished by July.

The 17,000 hp power development on the Ste. Marguerite River will probably be placed in service in May, while the 12,500 hp plant at the northern on the Ashuanipi River is near completion. The ore deposits are being readied for production.

By late summer, Iron Ore Co. will have spent over $225 millions on the job, the largest sum ever spent on a mining development prior to initial production.

Fifteen Million and Five Thousand . . .

. . . was Canada's official population on December 1, 1953. On December 1st, 1889 . . . the day Mr. A. E. Ames started in business . . . Canada's population was about four and a half million. Much has happened since then. Canada has grown and continues to grow.

It shows up in every part of the economy . . . our population is nearly three and a half times what it was in 1889 . . . Canada now is one of the world's important industrial nations and ranks fourth in world trade. Financial resources have increased tremendously . . . over five billion dollars are on deposit in savings accounts alone compared with only a few million sixty-five years ago.

This development requires energetic people to work in the woods . . . in mining . . . on farms . . . in industry . . . It requires initiative, courage and capital.

One of the important things about this growth is that Canadians, new and old, are beginning to realize just how rich this country is. And more and more Canadians who want to participate financially in its growth are doing so . . . by going into business for themselves . . . by lending their savings to industry or to public bodies through the purchase of bonds . . . by "buying into" well managed Canadian companies through the purchase of their shares.

When it comes to participating through the purchase of bonds and shares, we can do a good deal to help. We can help you "investigate before you invest" . . . If you like, we can help plan a programme to guide your future investment steps . . . we can help check the soundness of what you now have . . . and, of course, we can help with the actual purchase of securities. It's all part of our business.

Experienced, helpful people are available in any of our offices. You will be welcome whether you call in person or by mail.

By the way, we still have a few copies of a new, interesting booklet, "To Help You Share In Canada's Growth." If you would like one, just let us know.

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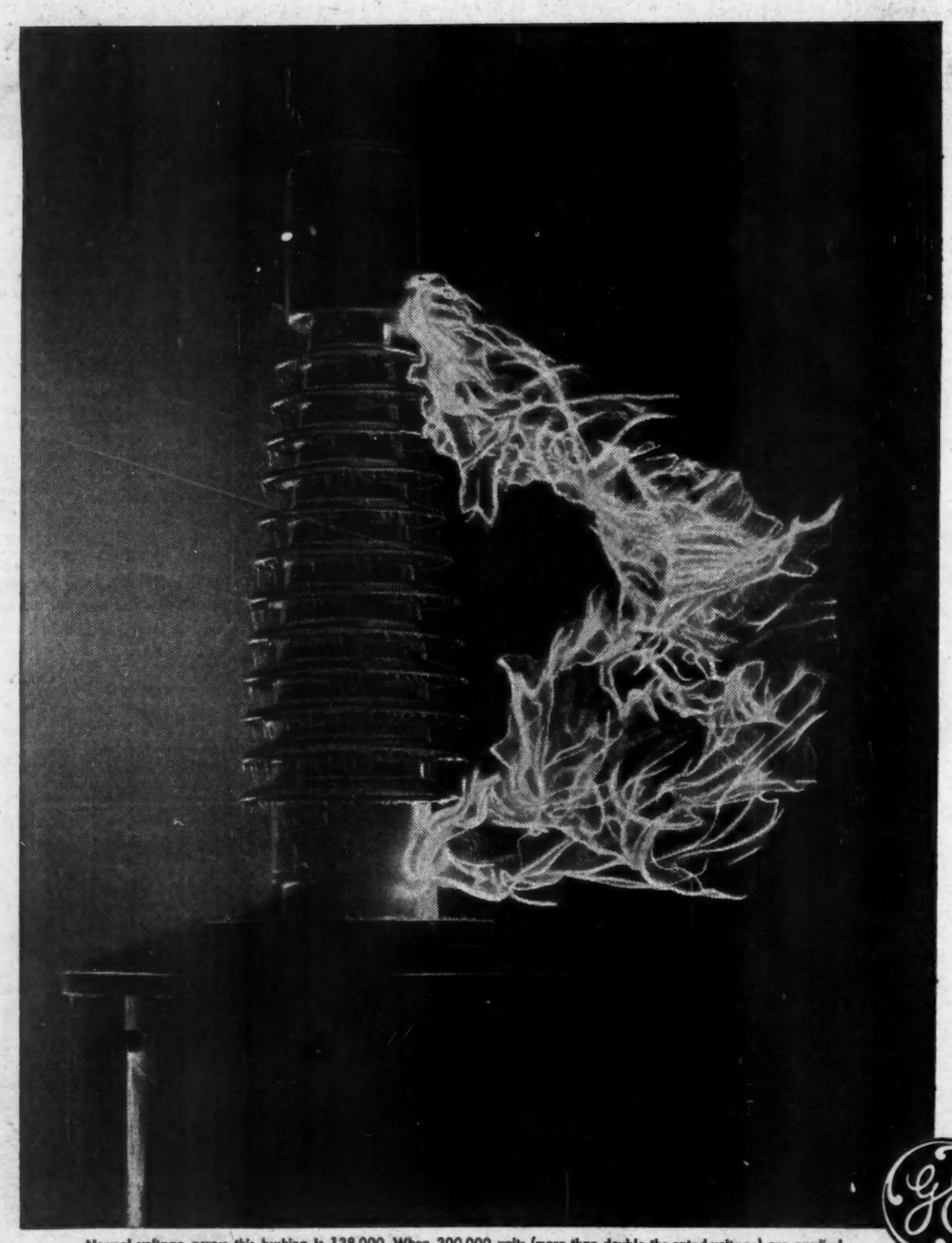
On North Stars Noise 'Mufflers'

In a move designed to reduce noise in passenger compartments, Trans-Canada Air Lines has installed modified exhaust systems in all North Star aircraft operating in Canada and U. S. Aircraft on Trans-Atlantic flights will be converted by the end of February.

A 50% reduction in noise is claimed by the company as a result of redirecting the exhaust system from the fuselage side of each engine to the opposite side farthest away from passenger. The company says this has been done without any power loss.



Normal voltage across this bushing is 138,000. When 300,000 volts (more than double the rated voltage) are applied in a wet atmosphere this dramatic flashover occurs. Note the path of the arc away from the porcelain. The bushing is specially constructed to insure deflection of the arc and to force it to ground harmlessly.

How to tame a 300,000-volt wet flashover....

When G-E testing engineers throw 300,000 volts at this transformer bushing (left), it sheds the enormous overvoltage like water off a duck's back. This wet flashover grounds instantly, well clear of equipment.

Only after the bushing has passed tests as rigid as this "trial by ordeal" is it approved to guard the elaborate heart of a transformer.

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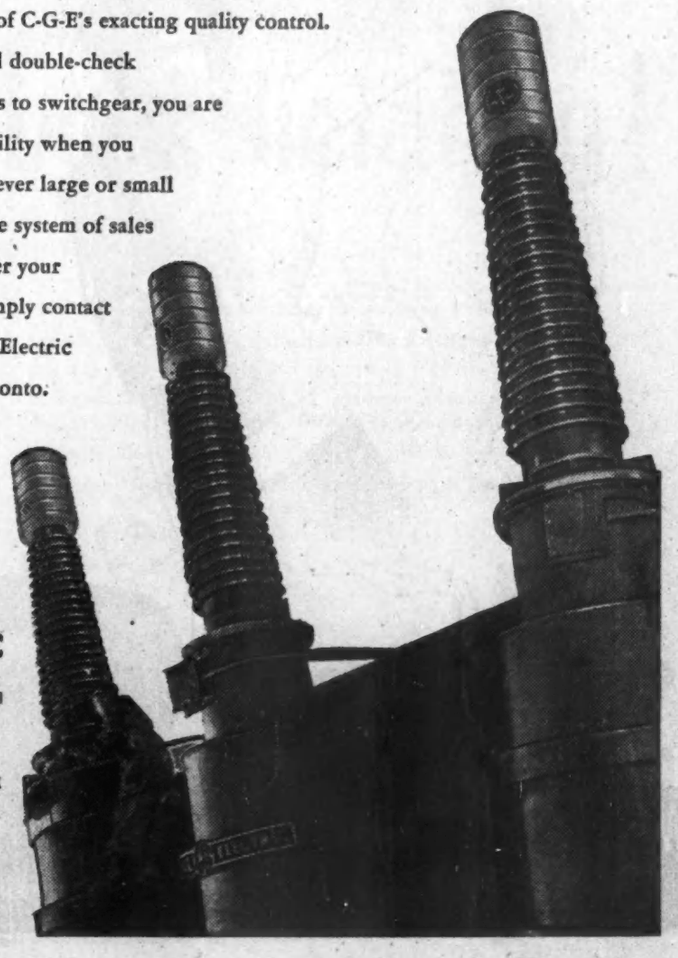

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$27 Millions More Going Into Public Works In '54

OTTAWA (Staff) — Government expenditure on new public buildings in the coming year may be as much as $27 millions above the current year's spending. Harbor and river works, dredging bridges and docks will be up less than $3 millions.

Trans-Canada Highway expenditure by the Federal Government will be about the same as the present year — $22 millions. (Last year's budget estimate of $16 millions has been exceeded by $6 millions.)

The full scale of this increase in spending on public buildings depends on the ability of the Department of Public Works, under its new management, to spend all the money it is to be voted.

This is certainly the intention of the new minister, R. H. Winters, and his deputy, General Hugh Young. But their technical advice may not always have been right, and they have inherited a departmental tradition of going slow on many projects listed in the published estimates for political purposes. This was particularly true last year, which was an election year.

So while the full $151 millions to be appropriated for Public Works may not be all spent, it is expected that actual expenditures will come much nearer the appropriation than has been the practice.

Last Year's Shortfall

The shortfall last year was not far short of 40% of the sums voted for acquisition, construction and purchase of buildings, harbor works, and river works.

The Architectural Branch, dealing with buildings, is falling about $17 millions short on a vote of $43 millions; and the Engineering Branch is falling more than $12 millions short on a vote of $34 millions.

Next year's vote for the Engineering Branch is being cut from $34 millions to $26 millions. The Architectural Branch is being increased from $43 millions to $49 millions.

An extra $3.5 millions is also being provided to the Architectural Branch for the maintenance and upkeep of buildings, making a vote of $36.5 millions for this purpose.

Provision for new public buildings is heavily concentrated in Ottawa and Quebec. Nearly $11 millions is for Quebec, and $10.6 millions for Ottawa. Included in the Quebec total is $1.5 millions for the year's expenditure on the new Film Board building.

Of particular interest is the vote (No. 401) for advance planning (The Post, Jan. 16). It is for $500,000, and the official description is: "To provide for advance planning of projects including acquisition of sites."

This innovation is starting with a relatively modest sum, but if it works out well the vote may be higher in future years. Its purpose is to enable the Government to buy land and draw preliminary plans for buildings without announcing them to Parliament, and being therefore committed to them.

It should be made possible to have some projects fully prepared and all ready to undertake at the desirable time.

J. HARVEY PERRY

who is to be appointed executive director, Canadian Tax Foundation.

Manitoba Hyd. Plans Issue

From Our Own Correspondent

WINNIPEG—Manitoba Hydro-Electric Board is planning a debenture issue, likely to be made within the next two or three months if financial markets are favorable, partly to repay some advances already made by the province.

The board already has power to borrow on its own credit or on guarantee of the province to build new power plants. Because of a technical omission in the Act creating the Board, there is doubt whether it has power to borrow for repaying advances by the province. So far these have totaled about $57 millions.

Legislation is being introduced at the current session to cure this defect. The Government is aiming to put the board on the same basis as the Ontario Hydro Commission. The amount of the issue hasn't been decided. It may be $10 millions or even considerably more.

GSW Sales Up But Net Off

Despite a 1% increase in sales, preliminary figures indicate a 28% drop in General Steel Wares' net profit in 1953, President W. F. Holding reported in a note accompanying current dividend cheques.

Company estimates a 1953 net profit after taxes of $750,000, equal to $1.70 a share on the common, compared with $1,044,000 ($2.70 a share) in 1952.

Large-scale dumping of foreign-made merchandise on the Canadian market, at abnormally low prices, said the president, has adversely affected profit margins, particularly on appliances.

Company has under way a comprehensive program for the reduction of manufacturing costs and expansion of sales. In this connection, the agreement recently made with Gibson Refrigerator Co., Greenville, Mich., will result in increased sales, reduced costs, and will generally strengthen the company's position in the appliance field, Mr. Holding said.

ANNOUNCEMENT

PHILMO HOSIERY APPOINT J. R. WEBB-SMITH

J. Webb-Smith, life-long resident of Hamilton, Ont., has been appointed Sales Manager of Philmo Sales Company, hosiery manufacturers of Montreal, in an announcement made by L. P. Morin, President.

Mr. Webb-Smith has for years been associated with the knit-goods industry in Ontario. He served overseas in World War II, with active service in North Africa, Italy and Germany, retiring from the Army with rank of Major. He will represent Philmo in Ontario and Western Canada.

Philmo packs nylon hosiery in transparent packages for display stand sale in grocery stores, under brand name "Select".

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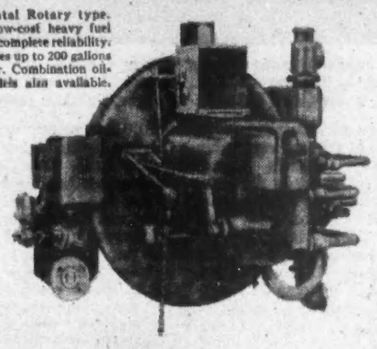

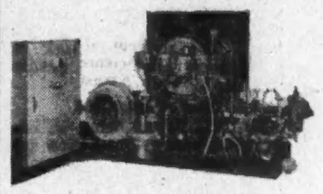

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Gairdner & Co. Goes Uptown With 'Experimental' Branch

Gairdner & Co. has opened a new branch office in Toronto of a type that departs from most other branch investment operations in Canada.

As business sections have moved uptown in some Canadian centres, investment firms have in several cases put in branch offices for convenience of uptown clients. In both Montreal and Toronto, for instance, houses have put in branches to serve midtown business districts.

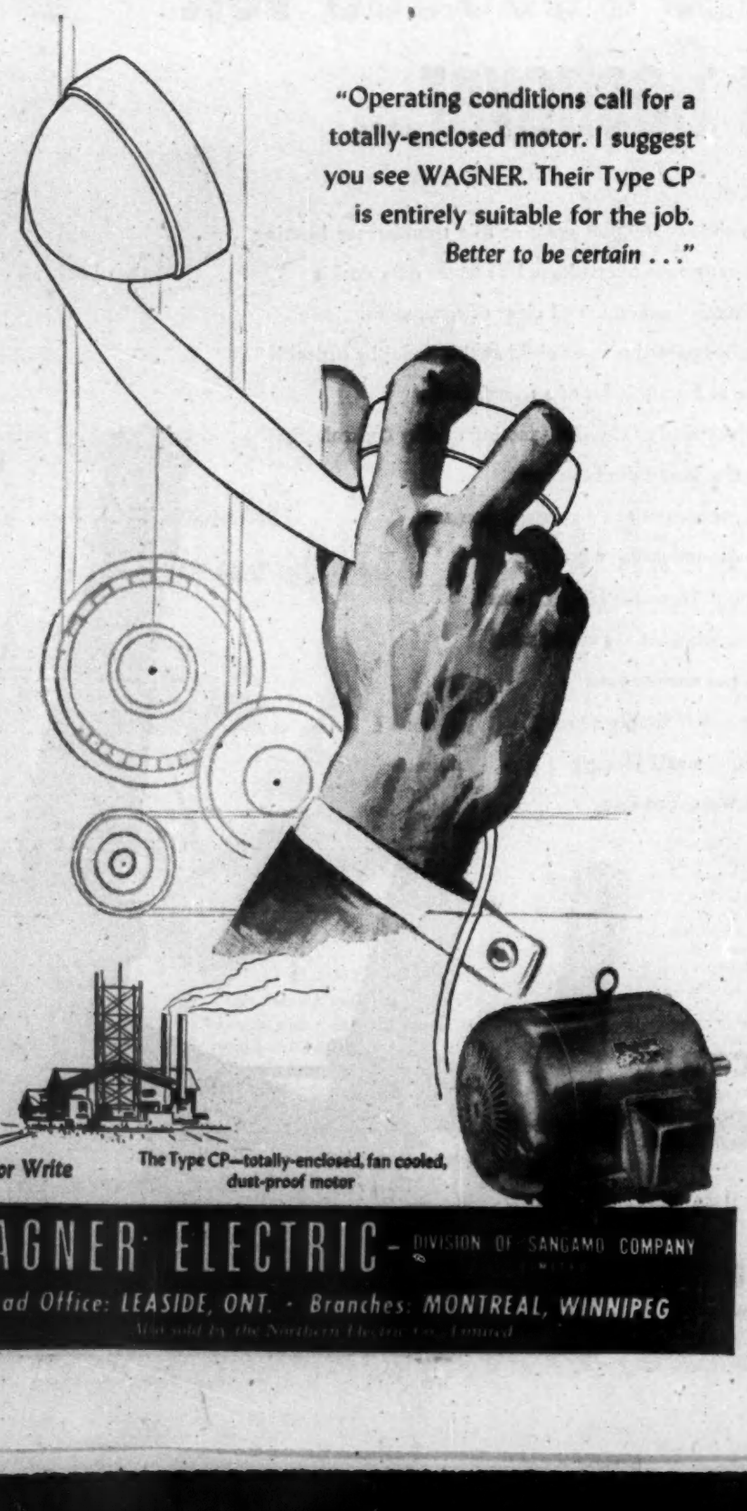
In the case of the new Gairdner operation, however, the branch office has been set up near the corner of Eglinton and Yonge Sts., where the northern terminal for the new Toronto subway is located. It is well away from the financial section of the city.

The office will be convenient not only for the firm's clients in the north end of the city, but it will also be a location from which the firm's account executives operating in the Toronto area will be able to get out and see clients easily, Gairdner officials believe.

The new office will have research facilities such as a ticker, a financial library and supporting files to enable the staff to advise clients on securities. Seventeen account executives will initially work from this office, supported by the necessary clerical staff.

Manager of the branch is Gordon C. Watt, for the past three years Gairdner's Toronto retail sales manager. He will continue in this latter capacity.

The company's head office on Bay St. in downtown Toronto will continue to work on new underwritings and handle business funneled through branch offices. In addition to the two Toronto operations, the firm now has offices in Montreal, Quebec City, Kitchener, Hamilton, Kingston, Calgary, London, Winnipeg and Arvida, Que. This year also A. E. Jukes & Co., Vancouver, became associated with the Gairdner organization. Until 1945, the company had operated two offices—one each in Montreal and Toronto.



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COMPANY REPORTS

To assist readers in appraising and comparing company financial statements, The Financial Post has a uniform method of presenting corporation accounts. Variations from the companies' published reports are footnoted.

Foods

ROYAL OAK DAIRY LTD., Hamilton, net profit of $75,197 for 1953 was 8% higher than 1952 net of $69,650.

Increase of about 6% in dollar and physical volume of sales reflects addition of two new retail routes and encouraging improvement in volume of sales per route, reports President Fred W. Hamilton. During the year, raw milk storage and pasteurizing capacity were increased at a cost of $11,000. Approximately $38,000 was spent for 10 new delivery trucks, of which nine were replacements.

Employees' profit-sharing distribution was $24,012.

INCOME ACCOUNT

Years Ended Dec. 31:	1953	1952
Net earnings	$176,279	$171,811
Less: Deprec.	40,082	34,161
Inc. taxes	61,000	68,000
Net profit	75,197	69,650
Less: Cl. A divds.	22,500	22,500
Cl. B divds.	23,000	20,000
Surplus for year	27,697	27,150
Earnings per Share and Dividend Record:		
Class A	$2.01	$1.86
Paid	0.60	0.60
Class B	1.06	0.94
Paid	0.30	0.40

CONDENSED BALANCE SHEET

As at Dec. 31:	1953	1952
Cash	$143,418	$172,302
Accts. rec., less res.	23,106	25,663
Invests.†	184,747	135,003
Inventory	30,995	31,912
Total curr. assets	382,266	364,880
Prep. exp.	4,189	4,742
Misc. assets	22,911	24,027
Fixed assets*	513,974	515,548
Total assets	923,340	909,197
Total curr. liab.	206,296	217,249
Mtge pay.	12,000	12,000
Capital stock	125,000	125,000
Capital surplus	275,454	281,793
Earned surplus	304,590	267,150
†Mkt. value	181,567	128,130
*After depr. of	225,343	201,014
‡Incl. in curr. assets in co's report.		
Working capital	175,970	147,631

Here are the highlights

Of what Chartered Trust Company accomplished in 1953:

- Served more people than in any previous year.
- Increased volume of business in every Department and greatly increased the financial assets of the Company.
- Opened a new Branch Office in Toronto — at 20 St. Clair Avenue West — which is flourishing because of its friendly efficient service to people in that area.

We believe that in 1954 new progress will be achieved through the Service and Security this Company offers to Canadians in all walks of life.

THESE FIGURES INDICATE A RECORD OF PROGRESS —

	Estates Trusts and Agency	Guaranteed and Savings Funds	Earnings Per Share
1943	$22,953,734	$ 4,523,329	$1.31
1948	36,209,891	12,687,076	2.19
1953	66,525,599	15,417,703	3.70

Ralph R. Corson, *President*
Henry E. Langford, *General Manager*

A copy of our Annual Report will be sent on request.

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What Are '54's Biggest Problems For Canada?

The Question: What would you say is Canada's biggest problem—economic or political—that must be faced in 1954?

Taken together, replies to this week's question by The Post suggest there's no room for political or economic complacency in Canadian affairs right now. We've got problems.

Chief among them, it's indicated, is tighter and tightening competition on the business front, which calls for a look at our price-wage structure in relation to sales and exports: Canadians have to learn to produce more for equal or less cost. That means emphasis on efficieney and a realistic approach to wage levels by labor.

Current soft spots and unemployment deserve a look and readjustment, it's claimed, in (a) international trade (and tariffs) and (b) public works.

Other things mentioned as major problems: the "legal irresponsibility" of trade unions; handling of government contracts; Quebec's new income tax.

ALEX AITKEN, Manager, Chamber of Commerce, Regina.

Increasing the total of international trade.

Canada has to sell more while buying more. There are knotty domestic problems involved. Other nations will have equally difficult problems but all have to do more trading if the world is to have work, food and peace.

* * *

MARGARET AITKEN, M.P.—York-Humber, Ottawa.

As a new member of Parliament, for the past six months I have watched and listened to the problems of Canada being presented to the House of Commons.

I believe our biggest problem to be faced in 1954 is economic. Rising unemployment in various sections of the Dominion is a major factor. During the next few weeks many members have been invited to meet delegations from different parts of Canada who represent a variety of industries, notably textiles, steel and farm implements. There is troubled concern in those industries over rising unemployment.

It is my belief that our biggest problem in 1954 is to find a way of maintaining our high standard of living yet compete in the world markets. The danger before us is that we may out-price ourselves in the export markets of the world.

* * *

H. F. ANGUS, Dean of Graduate Studies University of British Columbia, Vancouver.

Externally, Canada's biggest problem is one which confronts many other countries. The future of the world depends on establishing and maintaining reasonable relations between communist and non-communist countries. It will be unfortunate if important progress on this front cannot be made during this year.

Internally, Canada's most important problem lies in establishing and maintaining reasonable relationships between the federal and provincial governments. It is in Quebec that the problem appears most acute but such matters as unemployment, relief, health services, education and civil liberties cannot with impunity be sacrificed indefinitely for the sake of protracted processes of bargaining and logrolling.

* * *

E. J. BENNETT, Consultant, Economic Investment Trust, Richmond Hill, Ont.

Canada, although possibly the most fortunate country in the world today has, of course, many problems. Whether any of them will be faced in 1954 or, indeed, at all, is on the lap of the gods. In my opinion one of them is the necessity for legislation dealing with the status and regulations of trade unions. Inter alia these unions should be made financially responsible for broken arrangements and the secret ballot should be obligatory. Sound legislation on this matter would have favorable repercussions on some of our other major problems.

* * *

SENATOR C. L. BISHOP, Ottawa.

Potentially the largest political problem in Canada this year stems from the action of the Duplessis Government of Quebec in imposing a 15% provincial income tax. The suggestion is that all of this should be deducted from what the Quebec taxpayer has to pay to the federal authorities. This would vitally affect if not upset the whole basis of the agreements with the nine other provinces by the terms of which they stay out of the income tax field for a certain period.

Some think that Mr. Duplessis is starting off what may be a first class row, sounding discordant notes in any tune of national unity.

The largest economic problem at present I think is unemployment, showing a 50% increase over last year. While there are sustaining factors such as unemployment insurance and family allowances and the new housing program will be of beneficial effect, the situation gives rise to some anxious thoughts. If the St. Lawrence project should start this summer it would help tremendously, directly and indirectly.

* * *

J. T. BRYDEN, General Manager, North American Life Assurance Co., Toronto.

The necessity for a wide public understanding of the implications of the change to a more competitive economy and willingness to accept and work along with the readjustment which this will require.

Production will have to be tailored to consumption both in amount and in price, not only in the internal market but also in our export markets. This to my mind involves no further increases in wage rates, some shifting of employment as between industries and localities, some increases in productivity, more efficient business management, more active sales effort and price reductions to keep production moving into consumer channels and some reduction in corporate profits.

It has been many years since the consumer has had any real choice. For the foreseeable future, that choice in regards to both price and quality by consumers in other countries as well as in Canada for the things we make will dominate production and employment. Our success in meeting these conditions will depend on our flexibility.

* * *

F. M. CLEMENT, Former Dean, Faculty of Agriculture, University of B. C., White Rock, B.C.

The purchase price of commodities at home and abroad.

Wage problems, rising unemployment, communist irritations and similar current questions are symptoms of hesitation in our expanding economy. The pendulum of inflation has swung to its extreme and the symptoms of deflation sickness are here. Symptoms of distress can be allayed each by appropriate treatment. Situations cannot be corrected by saying they are only unpleasant. Leadership must act before symptoms are chronic. The problems are cushioned by flight of capital from United States.

* * *

W. C. MAINWARING, Vice-President, British Columbia Electric Co., Vancouver.

The task of the national economy in meeting the competitive production demands of world trade in order that our nation can retain its position in world markets. We are essentially a nation whose prosperity relies on returns from the productivity of our vast natural resources and there is joint responsibility between management and labor to insure we do not price ourselves out of competition.

To do this requires maintenance of present leveling off which has followed the period of constantly increasing production costs since World War II, and if possible to reduce these costs by improved production methods rather than by affecting personal living standards. I believe Canada to be as politically stable as any of the free nations a factor which should enable the accomplishment of this economic objective.

* * *

V. W. MALACH, Dept. of Economic and Political Science, Royal Military College, Kingston.

As far as I can see now, how to avoid a recession.

The gradual increase in the number of soft spots in the economy is ominously similar to the 1928-29 pattern. The persistent accumulation of wheat stocks and gradual deterioration of the agricultural situation is one of the major similarities. While such projects as the St. Lawrence Seaway, will help sustain the level of activity, it is most important that we do not price our exports out of the market.

* * *

R. S. MALONE, Winnipeg Free Press, Winnipeg.

Although a continuing period of industrial expansion is in sight, Canada's national worries in 1954 will likely be more economic than political. To meet heavier competition in trade both at home and abroad, Canadian industry, including farming, will be forced to sell more aggressively and at reduced prices. This will call for more serious efforts to cut operating costs. The result may well be that various industries will experience temporary stress and a lower employment index during a shakedown period. Some dislocation in trade may also lie ahead if increasing pressures for protective tariffs in Canada and United States make any headway.

* * *

JAMES MATSON, Canadian Manager, Royal-Liverpool Insurance Group, Montreal.

Assuming that the pressure of competition increases and that inflation is not used as a palliative, the biggest problem of 1954 could be combating the economic, political and mental strains and stresses which would arise from the difficulty of maintaining and strengthening the consciousness of independence in Canada as between provinces, as between town and country, industry and agriculture, as between labor and management and capital.

There are so many governments, trade organizations, labor unions, etc., all organizations representing only one aspect of the whole and yet it is the health of the whole which counts.

* * *

H. D. MCNAIRN, Manager for Canada, Prudential Insurance Co. of England, Montreal.

Maladjustment of taxation receipts and obligations between Ottawa, the provinces and municipalities.

Growth of Canada's population has aggravated this problem in recent years. The result is prodigality in spending by Ottawa and restrictions on the provinces and municipalities which is severely hampering development of Canada's natural resources and wealth. The present taxation wrangle between Ottawa and Quebec is evidence of the seriousness of the problem and is doing infinite harm to business in Quebec and development of Montreal, Canada's leading port and metropolis.

* * *

ISAAC MERCER, Q. C., Newfoundland Finance & Loan Co., St. John's.

Canada's biggest problem is neither solely political nor solely economic. It is political economy.

Our big Canada for its small population carries a terrific burden in external commitments. This must even be increased if we are to continue to work for world peace and security. It can only be lightened by increased production of goods.

Canada has the goods in the soil and on the sea, but their production can only be increased economically in proportion to expansion of markets. The biggest problem therefore is to increase our markets, domestic and foreign. Expansion of foreign markets depends partially on world conditions and partially on the manner of our dealing with other nations. The necessary expansion of our domestic market can only be met by increased immigration hence the political economy problem which must be faced now.

* * *

WILLIAM MITCHELL, President, Circle Bar Knitting Co., Kincardine, Ont.

Equalize the economy.

Explanation: Keep our dollars at par to the world, prevent U. S. jockeying them to a premium. Make living conditions such that every Canadian child and adult can live a healthy and interesting life. Appoint immediately a capable federal tariff board to find the relation of standard of living to tariffs and act on findings promptly. Enable farmers to buy on the basis on which they have to sell. Pray the Creator to give our federal cabinet ministers sufficient ability and judgment to equalize our trading positions with other countries—not show a deficit as we did last year.

* * *

RANDOLPH PATTON, Associate Editor, Winnipeg Tribune, Winnipeg.

Readjustment of domestic price-wage structure and external trade policies.

Postwar, and post-Korean, sellers' markets are gradually being

(Continued on page 11)

$85 Million Hydro Plant Planned For N. Manitoba

From Our Own Correspondent

WINNIPEG — A 300,000 hp hydro plant at Grand Rapids where the Saskatchewan River empties into Lake Winnipeg, estimated to cost between $85 millions and $100 millions, is the next hydro electric development tentatively planned for Manitoba.

If power consumption continues to increase at the rate it has for the last five years and the Government follows its present policy of preparing to supply power at least three or four years in advance of requirements, first money may be voted for it at the Legislative session of 1956.

The Grand Rapids site is about 250 air miles northwest of Winnipeg and is one of two alternatives for development of Saskatchewan River power in Manitoba. The other is the Dauphin River scheme, 100 miles south, also on the west side of Lake Winnipeg.

The Dauphin River scheme involved diversion of the Saskatchewan River through Lake Winnipegosis and Lake Manitoba, and thence through the Dauphin River into Lake Winnipeg. Partly because of the enormous excavation work required, it now has been discarded for Grand Rapids.

In its last five miles before emptying into Lake Winnipeg the Saskatchewan flows through a semi-circular gorge on the north side of which there are abrupt cliffs. The south shore line is lined with angular rock fragments. This part of the river isn't navigable. The drop in the 5-mile stretch is from 120 to 125 feet, thus making possible the highest head plant capable of development in Manitoba.

This year the Government is getting ready to provide power requirements in 1957 and 1958. The Grand Rapids development will be to meet requirements of 1959 and 1960 and after. At present a new $23 million plant is being built at McArthur Falls. Half its capacity, about 40,000 hp, will be deliverable late this year, the rest late in 1955. When it is finished or soon after, available power supply will not be more than enough to meet the demand.

For this reason, the Legislature is being asked to vote part of the money to build an 80,000 hp steam plant at Brandon estimated to cost $16 millions, about $200 per hp, which should be ready in 1957.

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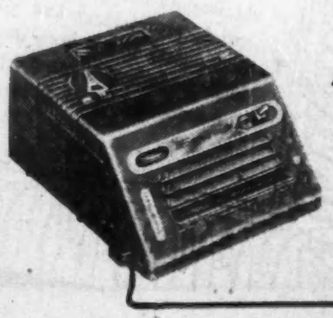

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ANNOUNCEMENT

ROBERT R. FARRELL JAMES H. WILSON

William H. Frank, President, BullDog Electric Products Co., Detroit, Michigan, announced the formation of a Canadian subsidiary, Dominion BullDog Limited, with plant and office located at 80 Clayson Road, Toronto, Ontario, for the manufacture and sale of BullDog electric products in Canada. Robert R. Farrell, of Hamilton, is Vice-President and General Manager of the Canadian subsidiary, and James H. Wilson, of Toronto, is Secretary-Treasurer and General Sales Manager. Both Farrell and Wilson are well known in the Canadian electrical industry. Henry C. Egerton, Treasurer of the parent company in Detroit, is President of the Canadian company.

The officers of the BullDog Electric Products Co., Detroit, along with Farrell and Wilson, comprise the Board of Directors of the Canadian subsidiary.

The name BullDog is well known in both Canada and the United States as the trademark of a company which for over fifty years, has been pioneering in the development and manufacture of quality electrical products. For many years BullDog products have been handled, in Canada, by Amalgamated Electric Corporation Limited, as exclusive manufacturing and selling agent. This relationship will terminate on May 1, 1954.

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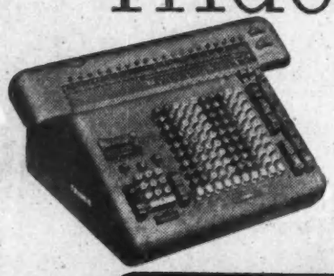

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MEMBERSHIP AVAILABLE IN UNLISTED CITIES

ABOUT YOUR TAXES By STUART THOM, LL.B.

Tax Guide Here To Business Income?

The decision of the Supreme Court in the case of the Minister of National Revenue versus L. D. Caulk Co. of Canada Ltd. is notable not for what is said in the reasons for judgment but for its implications in the determination of business income.

The appeal was one of a number brought by the dental supply companies, who, having successfully resisted the charge of having violated the Criminal Code by combining to unduly lessen competition, were refused the right to deduct their legal expenses in determining current income.

The opinion of the Supreme Court that such expenses were deductible will be cheering news to the legal profession which is the chief monetary beneficiary of the spate of combines prosecutions, although there remains to be decided whether such expenses are equally deductible if the verdict has been that of "guilty."

That is a question which will more likely than not reach the Supreme Court in its own time. In the meantime, the Caulk Co. decision provides a salutary answer to the effort made by the Government to confine business expenses within impossibly narrow limits.

What The Act Said

The Income War Tax Act under which the appeal was decided spoke of expenses wholly, exclusively and necessarily laid out or expended for the purpose of earning the income.

The Income Tax Act speaks of outlays or expenses made or incurred for the purpose of gaining or producing income.

The language of the statute has been interpreted and paraphrased in many decisions of the highest courts but it is fair to say that in the final result the allowance or disallowance of a particular expense has turned on the good sense of the Court as much as on the application of some principle which can be regarded as clearly understood and generally acceptable.

The present case is no exception. The judgment makes no effort to lay down any new restatement of the meaning which Parliament meant to convey in using the words it did in the statute. As a practical example, however, of the kind of expense which the Supreme Court thinks should be allowed it is of the greatest importance.

Counsel for the Crown at one time or another in the history of this litigation, which started in the Tax Appeal Board and from thence through the Exchequer Court to the Supreme Court, advanced three main arguments.

First, and briefly, it was said that these legal expenses were on account of capital. This proposition was not pressed and played no part in the final outcome.

Next, it was said that they were a "personal" expense in the sense that the costs of resisting a criminal charge were something a person, corporation or otherwise, undertook for personal reasons and not with any business purpose.

Finally, and this was the main contention, it was argued that such legal expenses were in effect too remote or so indirectly associated with the income earning activity as not to be properly allowable deductions. The Court held however that the legal costs incurred in defending trade practices were "working expenses—incurred in the process of earning the income."

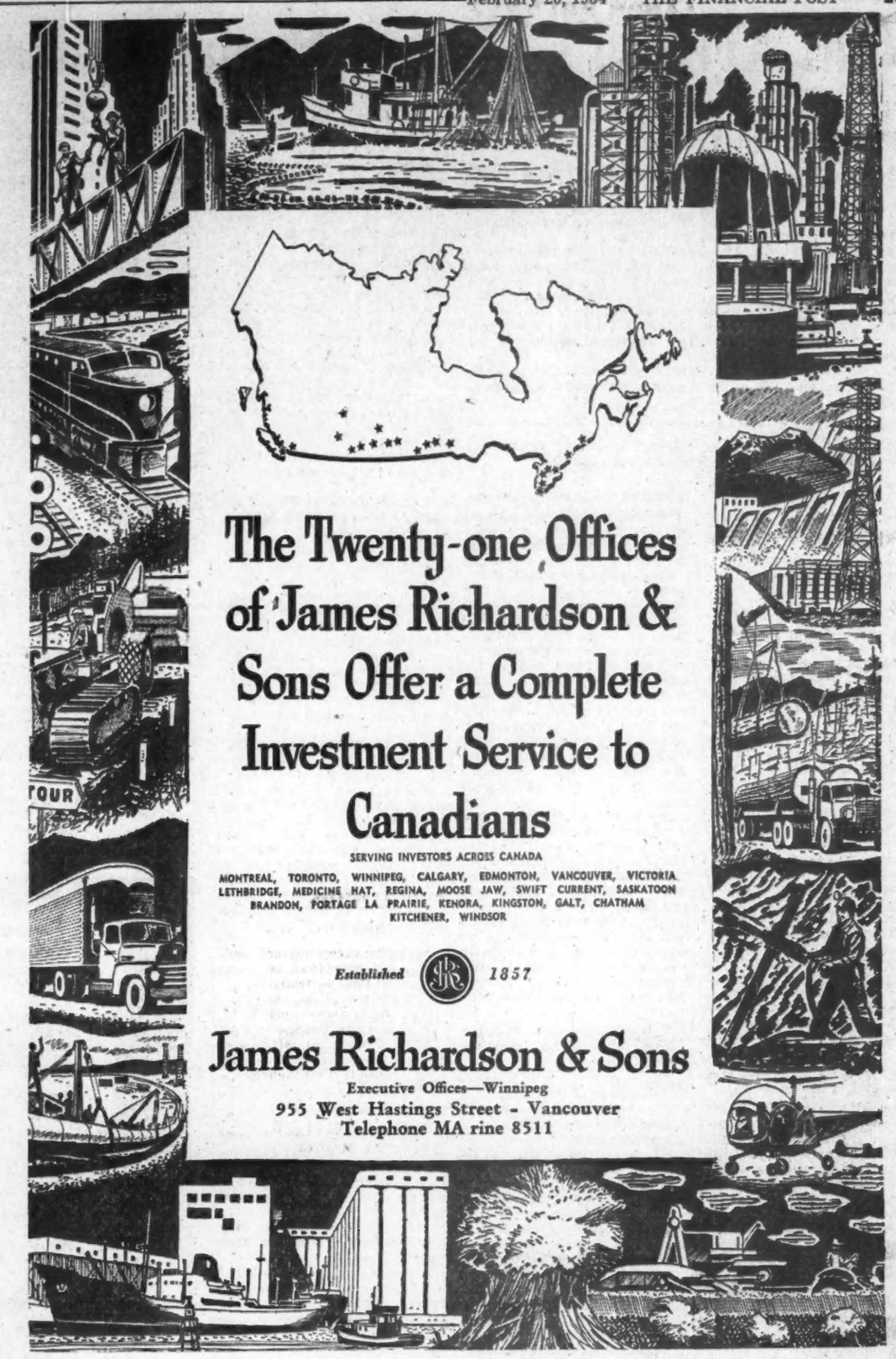
Battle Isn't Over

It is not of course suggested that this case will conclude or even more than briefly allay the conflict between businessmen and the tax collector regarding the deductibility of expenses.

It should serve, however, to go some way to quieting the almost panicky attitude in some circles that the tests of deductibility had become impossibly restrictive and that business was being turned over bound hand and foot for the tax collector's knife.

It is also advisable to bear in mind the remarks of a senior government official at a recent tax meeting that capital gains are not taxed in Canada and accordingly the Government must, of necessity, set some limit to the deduction of expenses.

When the question of the capital nature of an expense is paramount, the Government's apology is on sound ground. When, however, the prime question is simply whether or not the admitted non-recurring or revenue expenses is sufficiently close to the income earning activity to be allowed, it is hoped that the Government will be prepared to give full faith and credit to the lead set by the Court in the Caulk case rather than to set about whittling away its effect.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Staff Changes

Chartered banks announce the following staff changes:

Imperial:

E. A. JAMES, presently manager, Chatham, Ont., to be manager, main branch, St. Catharines, Ont.

A. S. BEATTIE, manager, Langton, to be manager, Chatham, Ont.

A. G. COOPER, accountant, Port Colborne, to be manager, Langton, Ont.

B. H. MYERS, assistant manager, King & York, Toronto, to be manager, new branch, Yonge & Eglinton, Toronto.

D. G. HALL, formerly assistant accountant, to be accountant, King & York, Toronto.

M. G. TINDALE, formerly accountant, Sarnia, Ont., to be accountant, Fort Colborne.

G. L. PREST, formerly assistant accountant, East End, St. Thomas, to be accountant, Sarnia.

H. R. BARCLAY, formerly accountant's department, Montreal, to be attached to accountant's department, Winnipeg.

P. L. HORTON, formerly assistant accountant, Bathurst & Dupont, Toronto, to be attached to accountant's department, Bond Department, head office, Toronto.

A. R. HOWARTH, formerly accountant's dept., Bond Department, head office, to be assistant accountant, Bathurst & Dupont, Toronto.

A. T. JARVIS, assistant accountant, Dundas & University, Toronto, to be accountant, Forest Hill.

G. F. PAXTON, formerly attached to inspection staff, to be accountant, main branch, St. Catharines.

B. V. SMITH, formerly teller-accountant, Bouriamaque, Que., to be assistant accountant, Fergus, Ont.

W. D. BEACOM, assistant accountant, Fergus, to be accountant, Schomberg, Ont.

G. E. JOHNS, accountant, Schomberg, to be accountant, Aurora.

R. D. HEATON, accountant, Aurora, to be attached to inspection staff, head office, Toronto.

W. H. ARMITAGE, formerly accountant, King & York, Toronto, to be assistant manager, King & York, Toronto.

* * *

Royal:

R. K. MENNELL, supervisor's dept., Bogota, Col., to be manager, Mayaguez, P.R.

D. J. MORRIS, accountant, Abbotsford, B.C., to be manager, North Clearbrook, B.C.

V. B. S. MARTIN, accountant, Langley Prairie, B.C., to be manager, White Rock, Hilltop, B.C.

A. A. JOHNSON, assistant manager, Yonge & Richmond, Toronto, to be assistant agent, New York, N.Y.

F. E. MORTON, accountant, Kitchener, Ont., to be assistant manager, Sarnia, Ont.

J. F. KEILANS, assistant manager, Sarnia, Ont., to be assistant manager, King & Church, Toronto.

P. J. LEGGATT, assistant accountant, Ciudad Trujillo, D.R., promoted to accountant.

A. CUSHMAN, Woodbine & Danforth, Toronto, to be accountant, St. Clair & O'Connor Drive, Toronto.

G. R. BROWN, assistant general manager's dept., Toronto, to be accountant, Kitchener, Ont.

J. H. MORRISON, accountant, Elrose, Sask., to be accountant, Moosomin, Sask.

E. L. GROSLAND, Medicine Hat, Alta., to be accountant, Foremost, Alta.

R. W. BRIGHTON, Brampton, Ont., to be accountant, Appin, Ont.

* * *

Montreal:

G. A. R. HART, formerly special representative to be a superintendent at head office.

J. B. LESSLIE, formerly assistant manager, Drummond & St. Catherine, Montreal, to be assistant manager, London, Ont.

J. E. TOTEN, formerly of head office to be assistant manager, Drummond & St. Catherine, Montreal.

R. G. TRUSS, formerly of the assistant general manager's department, Vancouver, to be assistant manager, at Nanaimo.

H. H. REINKE, formerly accountant, Cornwall, Ont., to be manager, Deer Lake, Nfld.

H. J. ANDERSON, formerly manager, Deer Lake, Nfld., to be manager, St. George's, Nfld.

G. W. A. PINCOMBE, formerly manager, St. George's, Nfld., to be manager, Corner Brook West, Nfld.

W. W. WAGG, formerly manager, Corner Brook West, Nfld., to be manager, Douglas, Ont.

J. M. McKONE, formerly accountant, Blenheim, Ont., to be manager, branch to be opened at Whitby, Ont.

* * *

Nova Scotia:

J. O. WALSH, an assistant supervisor, at general office, Toronto, to be a supervisor, that office.

J. L. ADDISON, accountant, College and Bathurst, Toronto, to be manager, Port Credit, Ont.

W. BALDOCK, manager, 101st St., Edmonton, to be manager, Sarnia, Ont.

D. M. CAMPBELL, manager, Petitcodiac, N.B., to be manager, Liverpool, N.S.

J. G. SMITH, accountant, Saint John, N.B., to be assistant manager, Fredericton.

C. W. JAMESON, accountant, Cobalt, to be supervisor, foreign department, that office.

W. H. BAIZ, to be accountant, Sydney Mines, N.S.

H. F. SUTHERLAND, to be accountant, Oxford, N.S.

R. H. WEATHERLEY, to be accountant, Willowdale, Ont.

R. E. PEEL, supervisor, foreign department at general office, Toronto, to be supervisor, business development, foreign division, that office.

H. K. NELMES, assistant manager, foreign exchange department, general office, Toronto, to be assistant supervisor, foreign department, that office.

D. A. AKER, to be manager, Niagara Falls, Ont.

W. L. FLEMING, manager, Derwent, Alta., to be manager, Stettler, Alta.

D. B. McGEE, manager, Yonge & Dundas, Toronto, to be manager, College & Bathurst, Toronto.

R. E. MENARD, manager, Fort Coulonge, Que., to be manager, Alexandria, Ont.

J. F. CLYSDALE, accountant, St. James, Man., to be accountant, Portage la Prairie, Man.

J. A. FAULKES, assistant accountant, Lethbridge, Alta., to be accountant, that office.

D. R. SIEGEL, to be accountant at 101st St., Edmonton.

* * *

Canadienne Nationale:

J. N. GOSSELIN, GEORGES BEAUDRY and LOUIS HEBERT, to be assistant general managers.

LOUIS ROUSSEAU, to be general inspector.

RENE LECLERC, to be chief inspector.

ANDRE LACASSE, to be chief accountant.

P. DESAULNIERS, to be manager, Montreal North (4839 Gouin Blvd. E., Montreal).

T. FAFARD, to be manager of branch at 3246 Beaubien St. E., Montreal.

O. HUDON, to be manager, St. Gabriel de Brandon.

R. LEPINE, to be manager, Senneterre.

L. BERARDINUCCI, to be manager of branch at 6851 St. Lawrence Blvd., Montreal.

H. ST-AMAND, to be manager, Metabetchouan, P.Q.

Another First FOR TORONTO
Now the Toronto Branch of DITTO of Canada, Ltd., becomes the "BRANCH OF THE YEAR" — first by all of DITTO'S standards and first in the United States and Canada. Both this branch and this city share equally in the honour . . . for while it takes first-rate management and salesmanship to win first place, our branch needed a first-rate market, too.
Now, just what is a first-rate market in these days of economic expansion tinged with international uncertainty?
It is DITTO'S business to sell the time-saving and the speed-up of daily routines brought by DITTO duplicators and systems to business, school, church, social, professional and governmental organizations. And it has been our observation that our business is best where the people themselves have the modern idea of getting the most done at the least expense of human and machine effort . . . a philosophy geared to our times and our country's economic development.
It certainly would appear that the perfect combination of good salesmanship and management and progressive point of view are found right here in the Toronto area, a section of Canada long famous for its leading position in many fields.
And so, at one and the same time, we salute the DITTO BRANCH OF THE YEAR, and the people of Toronto!
DITTO of Canada, Ltd.
32 MENDOTA ROAD — ETOBICOKE, ONTARIO.
TORONTO BRANCH: 310 SPADINA AVENUE.
DITTO, Incorporated — Chicago, Ill. — U.S.A.
Branches in principal cities throughout United States and Canada.

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Supervised Income Fund

NET ASSET VALUE AND PRICE

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*No quotation or other acquisition charges included or to be added.

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LABOR ROUNDUP

'Fringes' and National Health

How Will The Two Inter-Act in '54 Contract Talks?

With unions putting more and more stress on fringe benefits in 1954 contract negotiations, observers are wondering what effect the growing emphasis on health benefits will have on labor's general demand for a national health plan.

There are two schools of thought.

One contends this emphasis will speed inauguration of at least a partial national sickness insurance plan by Ottawa. The reasoning: institution of such a plan will come only with management's support; if labor forces management to pay more and more for continually improved insurance plans, management will try to get out from under the load by shifting it to Ottawa.

The other contention: by winning improved health benefits from management for its members, unions are reducing rank-and-file pressure for national sickness insurance. All the worker wants is protection from the expense of sickness. If he gets that in his union contract, he won't be nearly so interested in having Ottawa set up a national plan.

Many modern contracts include some degree of sickness insurance. But the most extensive are usually found in smaller contracts where, in many cases, wage rates are lower. In high-paying industries such as steel and automotive, contracts contain lesser health benefits.

In these industries, the idea has been that higher wages mean workers are more able to take care of their own medical and hospital expenses.

There is no apparent indication yet of the effect union health demands may have on labor's general demand for national health insurance. But the answer could become clear this year as individual unions press for better fringe benefits in contract negotiations.

So far, unions apparently are no closer to the answer than anyone else. It will be a case of some bargaining for improved health benefits and then trying to assess the reaction of management.

In the meantime, the bigger unions are going slow on health benefit demands hoping to gain whichever way the trend develops. By asking for a little at a time, they are putting steady pressure on management to make employers look to Ottawa for help but aren't getting enough for members to quench altogether their thirst for a national plan administered by Ottawa.

• • •

Mine Mill Parley

There will be a lot of interest in the national conference of Mine-Mill union at Port Colborne, Ont., this month-end. This meeting of Canada's No. 2 Communist-led union will pass along policy to be followed at Consolidated Mining and Smelting Co.'s big Trail plant and International Nickel at Sudbury.

The negotiations at Trail are particularly important in that they have set somewhat of a pattern in the past for other contracts in Western Canada.

Indications now are that Mine-Mill will not make any determined stand on wages but will stress fringe benefits. One good bet is that they will take up the "share-the-work" idea formulated last year in anticipation of layoffs but rejected by the membership at Trail.

Always an interested bystander

Labor Briefs

Number of labor-management production committees in Canada now is almost three times what it was in 1945—979 as against 346. The idea was first sponsored by the Federal labor department because of the manpower shortage during the Second World War and applies only to subjects outside the field of negotiations. Majority of the committees—503—are in manufacturing industries. Total workers involved in all industries: 335,000. Of these, 182,000 are in manufacturing.

• • •

Dave Beck, International leader of the Teamsters union which is making a determined bid for greater strength both here and in the U. S. (Financial Post, Aug. 15, 1953), has announced inauguration of a publicity campaign. The idea is to issue "union cards" to filling stations, and other such establishments and educate members to patronize only those displaying the cards. This, says Beck, will greatly increase work for members of the union. A by-product: more dues, more power for Beck.

'54's Biggest Problems

(Continued from page 9)

replaced by buyers' market. Canada should pare down taxes and ease restrictions particularly those against British goods. Our wage-price level is above world levels but the needed changes can be made without great difficulty if government, labor and business read the handwriting right and in time.

• • •

ROBERT RAYNAULD, Publisher, La Ferme, Montreal.

The main problem for the Canadian citizen to whatever class he may belong is of economic order. He will have to adapt himself to employment and remuneration conditions quite different from the past. He will have to realize that work requires effort, and that this effort which he will make will not be paid for at the sometime extravagant wages he has been used to getting for about the same kind of work. The employer will probably become more independent than he has been for the past decade or so.

Unemployment is growing and this, of course, will be especially felt by the labor force. All groups of workers will be well advised to be sure of their grounds before making any claims for higher wages and less working hours per week if we Canadians do not want to put up with an always rising cost of living. Our biggest problem therefore, will be one of readjustment. Everyone must be willing to face the facts that the age of easy living is past and that we are entering a new economic order where people will have to earn the money they want to get and perhaps work harder for that same money. It will not mean more hardships but the essential requisition of a new sense of values.

• • •

MAJ. H. G. L. STRANGE, Director, Agricultural Research, Searle Grain Co., Winnipeg.

The biggest economic or political problem to be faced by Canada and by all countries engaged in international trade and commerce is the necessity of a sharp lowering of tariffs and the elimination of quotas so as to expand international trade. Suggest that Canada should set an example and sharply reduce her tariffs, thus permitting overseas countries to sell more of their goods in Canada so enabling these foreign countries to obtain more Canadian dollars with which to purchase more of our wheat and other commodities they badly need and which we have in surplus quantities for sale.

• • •

DR. D. S. WOODS, Dean of Education, University of Manitoba, Winnipeg.

The political situation.

Shall Canada permit political party tactics commonly thought of as frequently employed elsewhere? According to a statement ascribed to Allistair Stewart in the House of Commons "unmitigated blackmail in the handling of contracts" of some sub-post-office keepers in drugstores, has been employed in Winnipeg. Further, shall the principle of freedom of speech be viewed as of national concern, and legislation formulated accordingly? Both issues have fundamental and immediate concern for all Canadians.

JOHN LABATT LTD.—An additional 890 common shares have been issued in exchange for Class A and B shares of Shea's Winnipeg Brewery Ltd. Total shares issued at Feb. 1, 1954, is 248,876.

New Issue

$1,000,000

Union Acceptance Corporation Limited

(Incorporated under the laws of the Province of Ontario)

5½% Sinking Fund Debentures, Series C

To be dated March 1st, 1954 — To mature March 1st, 1974

Trustee: The Canada Trust Company, Toronto

In the opinion of Counsel, these Debentures will be investments in which Companies registered under The Canadian and British Insurance Companies Act may, without availing themselves for that purpose of the provisions of sub-section (4) of Section 63 of the said Act, invest their funds.

We, as principals, offer these Debentures, if, as and when issued and accepted by us, and subject to the approval of Counsel, Messrs. Fennell, McLean & Davis, Toronto.

A prospectus will be furnished upon request.

Price: 99 and accrued interest to yield 5.58%

Debentures in definitive form will be available for delivery on or about March 1, 1954.

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MODERN STEEL DESKS
A complete line of beautifully styled Desks for all purposes ... Dealers across Canada ... Write for new catalogue and dealer information.
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Steel Office Equipment - Steel Lockers - Steel Shelving

THE MONTREAL
CITY AND DISTRICT
1846 SAVINGS BANK 1953

one hundred and seventh annual report

GENERAL STATEMENT
DECEMBER 31st, 1953

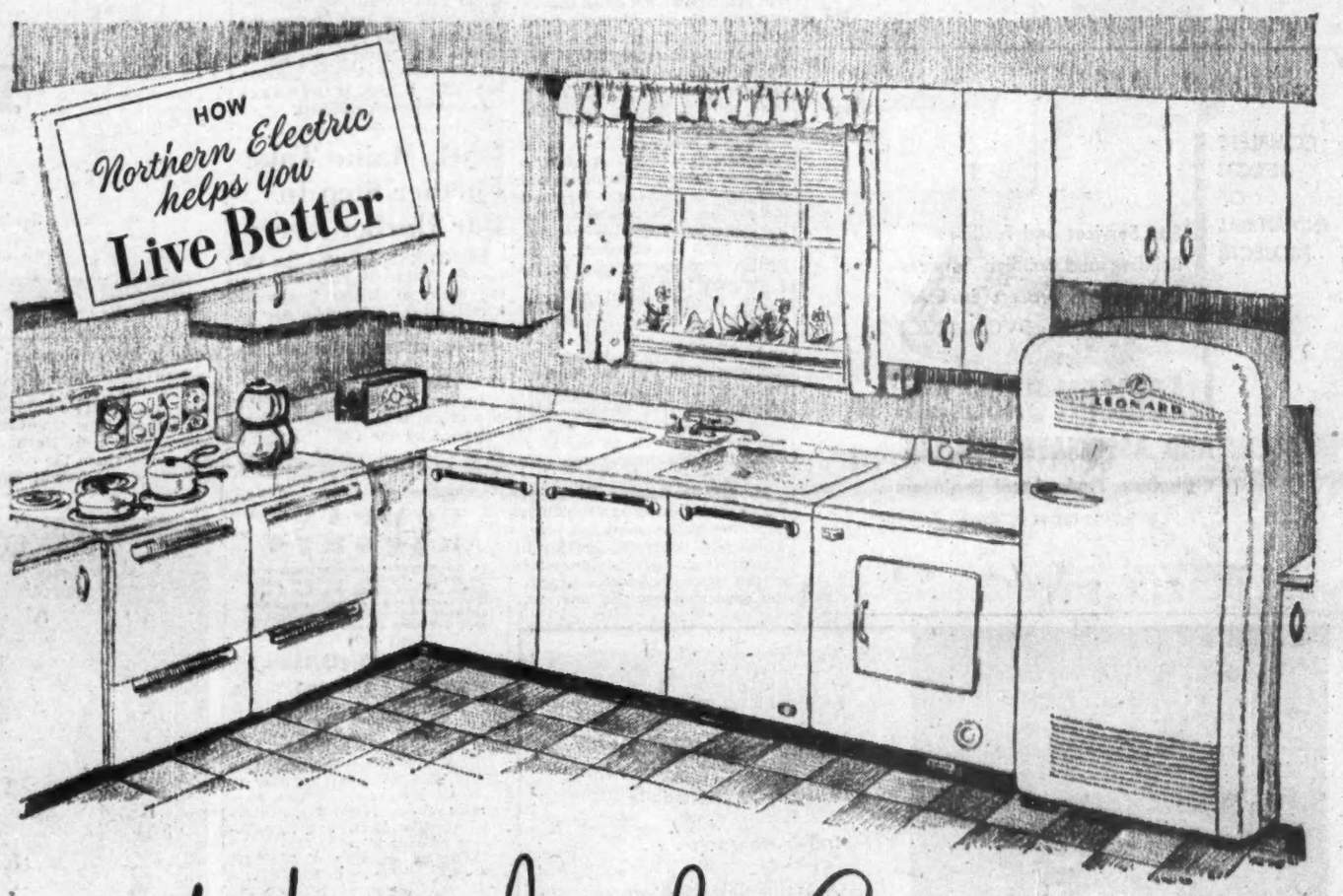
Assets

Cash on hand and in Chartered Banks	$ 18,105,846.35	
Federal and Provincial Government Bonds, not exceeding market value	121,352,532.22	
Canadian Municipal and School Corporation bonds and debentures, not exceeding market value	33,668,477.23	
Other Bonds and Debentures, not exceeding market value	7,921,635.10	
Sundry Securities, not exceeding market value	353,063.98	
Call and Short Loans, secured by collateral	3,529,796.71	
Other Short term Loans	249,285.73	
Loans to Fabriques de Paroisses or to Religious Corporations	1,859,386.26	
Loans secured by first mortgage	4,547,168.30	
Charity Donation Fund, invested in Provincial Government and Canadian Municipal Bonds approved by the Federal Government	180,000.00	
		$191,767,191.88
Bank premises (Head Office and Branches)	$ 2,000,000.00	
Other Assets	1,814.74	
		$ 2,001,814.74
		$193,769,006.62

Liabilities

To the Public:		
Deposits bearing interest, including interest accrued to date	$183,277,626.76	
Deposits not bearing interest	2,770,014.52	
Charity Donation Fund	180,000.00	
Other Liabilities	85,728.55	
		$186,308,369.83
To the Shareholders:		
Capital Stock	$ 2,000,000.00	
Reserve Fund	5,000,000.00	
Balance of Profits carried forward	380,402.09	
Dividends outstanding	234.70	
Dividend payable January 4th, 1954	80,000.00	
		$ 7,460,636.79
		$193,769,006.62

On behalf of the Board.
GUY VANIER, *President.*
P. ALPHONSE PERREAULT, *General Manager.*



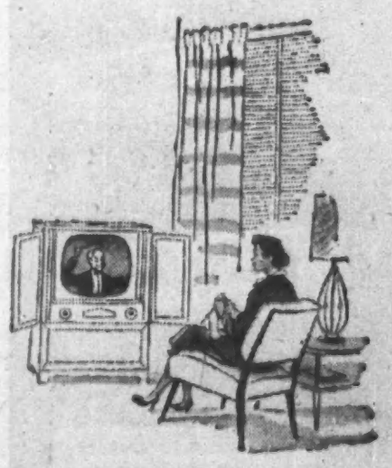
Where's Mother?

An empty kitchen prompts the question, "Where's Mother?" It was not so many years ago that you could usually find her in the kitchen where she spent so much time cooking meals and doing family chores. Today, Mother may be doing other things around the home—or just relaxing. And whatever she is doing you can be sure it has her undivided attention—now that she's got an electric kitchen!

Meals for the family are cooked to perfection in an electric range that can be set to have dinner ready at whatever time she desires. She never worries about food spoilage because her self-defrosting electric refrigerator keeps all foods garden-fresh. Housecleaning and laundry are easily and quickly done with modern vacuum cleaner and automatic laundry equipment and, of course, television and radio have made the home a bright centre of entertainment and relaxation.

Northern Electric's contribution to better living includes supplying wire and cable and other items necessary to carry electricity from its source to your home. In addition, Northern Electric also distributes such time and work saving devices as Gurney Electric Ranges, Leonard Refrigerators, "Jet 99" Vacuum Cleaners and Gainaday Home Laundry Equipment, as well as radio and television receivers.

Northern Electric really helps you LIVE BETTER.



Northern Electric
COMPANY LIMITED

A NATIONAL ELECTRICAL SERVICE

6454-3

"Why bury it, when they could have saved it and got good interest too, at the bank that service built"

You can be sure of fast, courteous service at

IMPERIAL

"the bank that service built"

IMPERIAL BANK OF CANADA

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COMPLETE DESIGN OF INDUSTRIAL PROJECTS

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MARGISON BABCOCK
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Consulting Professional Engineers
30 Eglinton Avenue E., Toronto

Open Sterling Area Door Wider For Our Exporters

OTTAWA (Staff) — Good news for Canadian exporters to the sterling area came from two quarters this week.

The British West Indies has done much better than renew the token import plan: a good many more of Canada's staple exports have been added to the list of things than can be bought freely from anywhere.

The United Kingdom itself has come through with an increased allocation for buying B.C. canned salmon in 1954.

The extension of open general licenses for all the BWI colonies now means that a large proportion of Canada's staple exports to that area can be sold in free competition with all other suppliers. Discrimination against dollar goods is over so far as the goods on this list are concerned.

Some of the most important items on the newly freed list are:

—Newsprint and kraft paper.

—Dried, smoked, salted or pickled fish, which is particularly important to Newfoundland; and canned fish.

—Powdered and canned milk.

—Vegetables, including potatoes, onions, split peas.

—Meats and cheese.

Animal feeds are freely admissible everywhere except in British Guiana. Flour is on open general license in some of the colonies, but not in others.

Principal items of trade which are still restricted are automobiles, lumber, electric fixtures, beer and liquor. The hope here is that many of them may be added to the open category next year. But it is felt that real progress has been made toward restoring the Canadian trade with the BWI.

Salmon Deal

The B.C. salmon deal is now under detailed negotiation in Vancouver. The U.K. allocation of dollars follows last September's mission to London, when the B.C. industry presented the British Government with a list of British goods, amounting to $4½ millions, which it was purchasing in the U.K.

It was made clear that this was not a question of barter. But the industry had heard of Britain's anxiety to increase its dollar sales. It carefully investigated British goods, and discovered many substantial items, ranging from tinplate to fishing equipment, which it could buy there.

At the time, the British Government expressed its appreciation of the B.C. effort, but Chancellor of the Exchequer Butler could not then commit dollars for 1954 salmon purchases.

But he has now allocated a higher sum for salmon than the U.K. spent last year, or than the purchases made by the B.C. industry. The figure is not stated, but it is guessed at $5-$6 millions. The 1953 British purchases amounted to $4¼ millions.

Colombo Order Won't Interrupt Diesel Schedule

MONTREAL (Staff) — Confirmation last week of the $20 million steam locomotive Colombo Plan order will not interfere with diesel production at the Canadian Locomotive Co. Kingston, Ont. plant.

Vice-president G. A. Mueller tells The Post that the order, which calls for the building of 120 locomotives for India, has been spread out over two years and will not clash with completion of current CPR diesel orders, or acceptance of additional diesel contracts. Construction rate is expected to be about eight units per month, with the first steam locomotive completed by February, 1955, and the last by the beginning of 1956.

While a substantial volume of subcontracts will be awarded in the near future, it is understood that up to 80% of the steam locomotives will be represented by Canadian materials content. About 15% is expected to be British with the balance of the work going to U.S.

The engines will be large, broad-gauge streamlined passenger locomotives similar to the 40 units built by the company for India in 1949. To be financed under the Canadian Government's $25-million-a-year Colombo Plan (The Post, Jan. 16), the engines will form the bulk of the allotment to India during the next two years.

Mr. Mueller pointed out that no major capital investments will be necessary at the company's plant, which was converted in 1951 to diesel manufacture, because much of the steam locomotive producing apparatus was not removed.

CNR, Maine Take Further Step In Bar Harbor Ferry

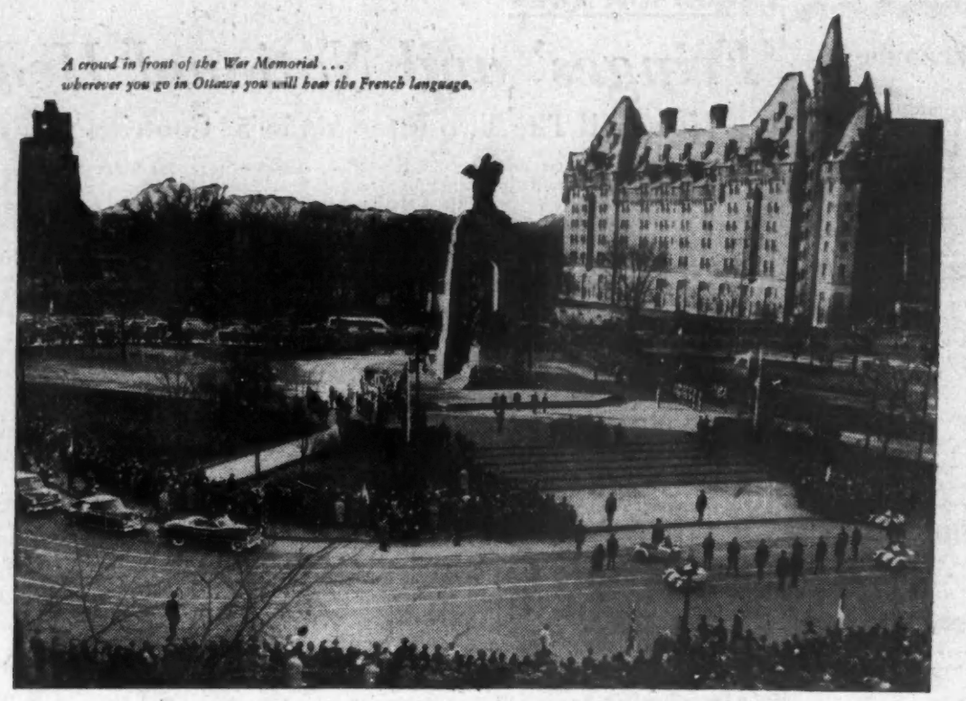
MONTREAL (Staff)—The Canadian National Railways and the State of Maine this week agreed on the immediate start of construction of a $1 million ferry terminal at Bar Harbor, Me., for the ferry which will connect the city with Yarmouth, N.S.

To be completed by mid-1955, cost of the U.S. facilities will be refunded by the CNR through a 30-year annual rental arrangement. The terminus at Yarmouth is also in the development stage.

Construction of a $4 million ship for the new service is well under way at Davie Shipbuilding Ltd., Lauzon, Que. The Canadian Government and Nova Scotia will jointly share the cost of the new ferry which will have six decks and will accommodate 600 passengers and 150 vehicles. Propelled by six twin-screw diesel engines, it will be capable of 18½ knots; over-all length will be 346 ft., and displacement, loaded, approximately 4,370 tons.

Passenger space includes day cabins, main, observation and ladies lounges, children's playroom, dining saloon, lunch counter and news stand. A special feature will be stabilizers which are said to practically eliminate rolling of the ship.

The ferry run is specifically designed to further develop U.S.-Canada tourism and to speed the delivery of perishable goods. Eventually, a daily round trip is planned between the two ports. The watery ride will save about 220 miles, when compared with a similar trip by land.



A crowd in front of the War Memorial . . . wherever you go in Ottawa you will hear the French language.

Metropolitan Ottawa is *43.2% French

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Over four hundred national advertisers sell the rich, Ottawa French-speaking market through "Le Droit". When a budget allows for only two papers in Ottawa, they wisely reconcile a two paper budget with a two language market.

* 1951 Census — Federal Bureau of Statistics
(Breakdown on Request)

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12K

COMPANY REPORTS

To assist readers in appraising and comparing company financial statements, The Financial Post has a uniform method of presenting corporation accounts. Variations from the companies' published reports are footnoted.

Public Utilities

MARITIME TELEGRAPH & TELEPHONE CO., Halifax, net profit of $1,276,465 for 1953 was 37.4% higher than 1952 net of $928,682.

Gross operating revenue rose 15.4% from $8,075,865 in 1952 to $9,317,300 last year. Of this, local service revenue rose 16.9%, toll service revenue 12.7% and miscellaneous revenue 9%.

Operating expenses of $6,028,871 were 9.8% higher than 1952's $5,490,357. Major contributing factor was rise in depreciation provision, due in part to enlarged plant and in part to increased depreciation rates approved by government authorities.

Gross construction during 1953 amounted to $4,494,700, and retirements $1,639,046, resulting in net additions to plant of $2,855,654. Two new central office buildings were constructed, at Riverport and Shubenacadie.

Work was launched during the summer on installation of a substantial addition to toll dialing plant throughout Nova Scotia, reports President A. Murray MacKay. When completed early this year, project will provide toll dialing facilities for 50 additional toll lines.

By means of expanded radio and land line system, the Maritime route handling telephone communication with Newfoundland will be used early in 1954 as an alternate route for Trans-Canada and U. S. traffic.

Number of telephones in service increased 5.2% during the year to a total of 121,016 on Dec. 31, 1953. Of this number 75.9% are dial operated.

A common stock issue of 164,578 shares, par $10, was offered Nov. 23 at $13 per share by means of rights, and 160,810 or 97.7% was subscribed. Proceeds will be used for construction program. A certain amount of new financing will probably be necessary in 1954, says the president.

INCOME ACCOUNT

Years Ended Dec. 31:	1953	1952
Net earnings	$4,296,197	$3,429,474
Less: Deprec.	1,331,003	1,110,194
Bond int.	477,500	421,250
Other interest	221	43,493
Income tax	1,192,841	928,391
Add: Bd. prem.	1,833	2,536
Net profit	1,276,465	928,682
Less: Pref. divds.	105,000	105,000
Common divds	928,975	761,446
Surplus for year	242,490	62,236
Times Bond Int. Earn.†	6.17	5.40

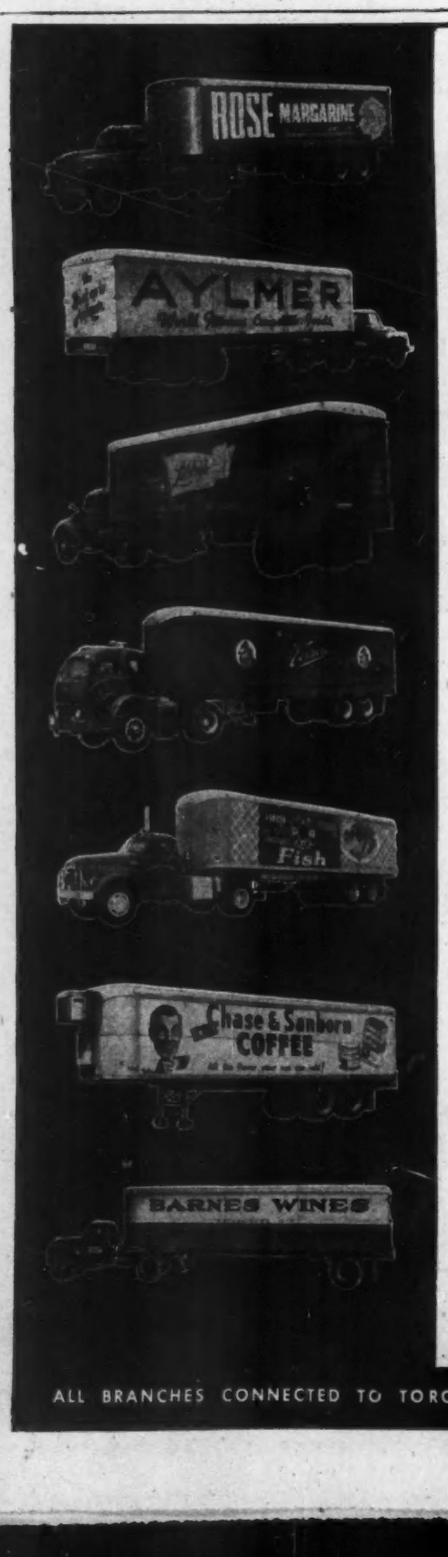
†After other interest and depreciation.

Earnings per Share and Dividend Record:		
Preferred	$6.51	$6.19
Paid	0.70	0.70
Common	*1.00	0.72
Paid	0.80	0.80

*Based on number of shares issued and outstanding at Dec. 31, 1953.

CONDENSED BALANCE SHEET

As at Dec. 31:	1953	1952
Cash	$2,435,395	$1,538,305
Accts. rec.	1,113,320	1,009,830
Inventories	1,367,658	1,941,971
Total curr. assets	4,916,373	4,490,106
Misc. assets	153,163	104,523
Investments	391,150	391,150
Fixed assets	37,187,900	34,349,796
Total assets	42,650,591	39,335,580
Accts. tax. pay.	987,887	868,460
Divds. pay.	259,911	256,098
Accr. bd. int.	192,292	192,292
Total curr. liab.	1,440,090	1,316,850
Def. credits	59,429	62,600
Funded debt	13,500,000	13,500,000
Deprec. res.	8,037,930	7,337,137
Other res.	578,749	578,749
Prem. on cap. stk.	2,764,564	2,252,424
Capital stock	14,790,010	12,909,580
Earned surplus	1,470,519	1,238,226
Working capital	3,476,283	3,173,256



In more and more Canadian industries the trend is to Trailmobile trailer transport . . .

A Trailmobile is a warehouse on wheels which proclaims your product wherever you send it . . .

Trailmobile trailers can cut distributing costs, help reduce inventories, improve your service to customers.

Trailmobile's engineers will "tailor" a trailer to suit your special needs . . .

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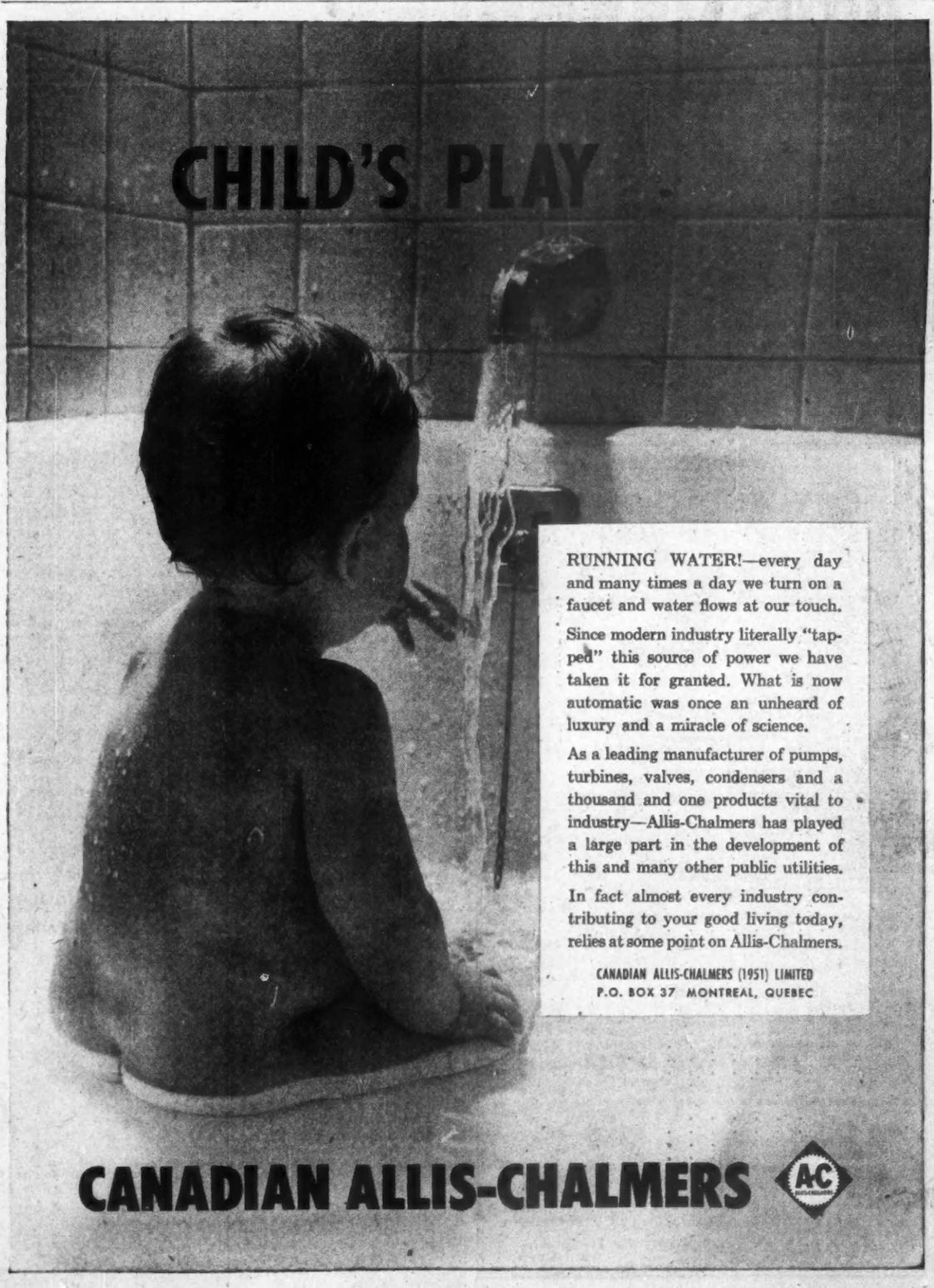

RUNNING WATER!—every day and many times a day we turn on a faucet and water flows at our touch.

Since modern industry literally "tapped" this source of power we have taken it for granted. What is now automatic was once an unheard of luxury and a miracle of science.

As a leading manufacturer of pumps, turbines, valves, condensers and a thousand and one products vital to industry—Allis-Chalmers has played a large part in the development of this and many other public utilities.

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LAVAL DES RAPIDES, QUE. School Commission has sold $257,000 4½% bonds due 1955-64, and $70,000 4½% due 1965-74, to Rene T. Leclerc Inc. at 96.57. Net cost 4.8%. Proceeds for construction of school. Provincial grant of $195,950 payable in 10 annual installments. Net funded debt at June 30, 1953, $42,500; population 4,200.

Postwar Immigrants Will Hit Million Mark In 1954

OTTAWA (Staff) — They're now talking about the millionth postwar immigrant who will arrive in Canada sometime this year. Some 600,000 of these immigrants have arrived in the last four years.

Just under a quarter — 134,300 — came from the United Kingdom and Ireland, and just over 100,000 came from Germany. The proportion of British immigrants has been increasing, as a matter of deliberate policy in recent years; and in 1953 they accounted for more than a quarter of the new arrivals.

Another change in the 1953 pattern of immigration, which was not a matter of deliberate policy, is that the proportion of workers to dependents rose considerably. The rough rule of thumb has been that the immigrants going into jobs are about half the total. Last year 91,000 went into jobs, compared with only 78,000 dependents.

Ontario has been consistently the province to absorb most newcomers. Last year well over half — 90,000 out of 169,000 — settled there. Quebec came next with 34,000. Alberta took 15,000 and British Columbia 13,000.

A fuller breakdown of immigrants by occupations was instituted during 1953, and it shows that much the largest class of new arrivals are skilled workers going into manufacturing or mechanical jobs. There were 26,500 of these new skilled workers in 1953. Agriculture is next with 17,000; and the range of jobs described as "service" accounts for 13,000. This covers female domestics, nurses' aides, hairdressers, manicurists and suchlike.

Only 10,000 unskilled laborers were admitted last year.

An interesting new group, isolated in the statistics for only nine months of 1953, is described as "managerial." It shows that nearly 1,200 executives arrived and took jobs between April and December of last year. Other professional workers represented 6,800 out of the 1953 arrivals.

Compared with the 91,000 new workers, there were 31,000 wives and 41,000 children. The largest age-group of all consisted of children under 14 — 38,000 new young Canadians. Children apart, the new arrivals are concentrated in the age range of 20 to 40.

Four Years' Immigration, Showing Principal Countries of Origin

	1950 000	1951 000	1952 000	1953 000	4-yr. Total 000
Total	73.9	194.4	164.5	168.9	601.7
U. K. & Ireland .	13.4	31.4	42.7	47.0	134.5
U. S.	7.8	7.7	9.3	9.4	34.2
France ...	0.1	6.2	4.2	3.1	13.6
Germany .	5.8	32.4	28.3	35.0	101.5
Italy	9.0	24.4	21.4	24.3	79.1
Holland ...	7.4	19.1	21.2	20.5	68.2
Poland	6.6	12.9	5.5	3.2	28.2

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Pacific Ave. at 20th St. Phone 5391

BOOKS FOR BUSINESSMEN

MAJOR PROBLEMS OF U. S. FOREIGN POLICY, Brookings Institution, Washington, D.C., 429 pages, $2 paper bound, $4 cloth.

Seventh in the Brookings series of annual volumes dealing with U. S. foreign policy, this gives the reader a brief survey of the present world situation, an account of the fundamental and continuing objectives of the U. S., Britain and Russia. Major problems facing U. S. in its foreign policy at the end of 1953 are reviewed.

Bruck Bookings Fairly Good For Spring

MONTREAL (Staff) — While yardage sales of Bruck Mills Ltd. in its first quarter were close to levels of a year earlier, the prevailing lower unit returns caused a moderate drop in dollar volume, shareholders were told at the annual meeting.

Increasing sales of some of the company's new products are creating bright spots and were reported offsetting to some extent low margins on other lines. Fabric buyers continue cautious but spring bookings were described as reasonably good.

Shareholders learned that the company's plants are operating fully, but no predictions on future results were made owing to present unsettled conditions. The import problem has not diminished, while domestic competition has increased, it was stated.

Bruck showed a net loss of $270,594 in the year ended Oct. 31, 1953, against a profit of $373,539 in 1951-52.

Petrofina Lets Contracts On New Refinery

MONTREAL (Staff)—Canadian Petrofina Ltd. expects to start construction of its new $20 million oil refinery early this spring. Site is now being cleared and the company is waiting for the weather to break before getting under way.

Acquisition of some 215 acres of land in Pointe aux Trembles as the refinery site was announced by executive vice-president A. F. Campo. Located at the eastern end of Montreal Island, the land runs from Sherbrooke St. East to a line some distance north of the proposed Metropolitan Boulevard.

The refinery, which will have a daily capacity of 20,000 bbls., is expected to take about two years to build. Contractors will be Canadian Kellogg Co. and Lummus Co. of Canada. A new office building to house refinery administrative and office staff, plus district sales personnel, will be built at Sherbrooke St., immediately behind which will be the plant cafeteria, oil-blending plant and tank truck loading racks.

Meantime, the newcomer continues its big task of putting together an extensive marketing network. At present, including a few independents which have been signed up, some 25 outlets are selling "Fina" and "Super-Fina" products. Most of these are in the Montreal area, with some in the Quebec City district and the company is also represented now in Prescott and Winchester, Ont., Amos, Que., and the Lake St. John district.

A Setting For Industry
The choice of a business site is governed by many important factors—supplies of raw materials, proximity of markets, labour, transportation—and, not the least important, whether the particular district under consideration is one where staff will be happy to work and happy to live—a combination that helps ensure good relations between executive and labour.
Meeting as it does most of Industry's basic requirements Nova Scotia excels in this last consideration, for it has a moderate climate, with open highways in the winter and the summer heat tempered by fresh sea breezes—it provides the opportunity for sports of all kinds at everyman's back door—salt and fresh water fishing and swimming, hunting and sailing—enjoyed by rich and poor alike. A Province where shady trees, verdant lawns and colourful gardens grace homes both small and large.
As well as a rapidly expanding SELLER'S market, Nova Scotia has steel, coal, lumber, gypsum, salt, limestone, fish and agricultural products available in quantity—and it has a government that is alive and ready to aid Industry and Commerce.
For further information write to:-
The
Department of Trade & Industry
HALIFAX, NOVA SCOTIA

COMPANY REPORTS

To assist readers in appraising and comparing company financial statements, The Financial Post has a uniform method of presenting corporation accounts. Variations from the companies' published reports are footnoted.

Insurance

DOMINION LIFE ASSURANCE CO. in 1953 enjoyed its most satisfactory year ever, the directors' report for the year states. President J. E. Frowde Seagram stated the report records "unparalleled advances" in new business written and in the strengthening of the company's financial position.

Vice-president and Managing-Director A. S. Upton said new business issued, increased and revived amounted to $77.6 millions, a new high and about $13 millions or 21% above the 1952 level.

Insurance in force was $563 millions. The company has 138,000 ordinary policies in force, in addition to a substantial number of life and accident and health certificates.

Total income was $20,466,907, including profit on sale of assets ($20,685,782 in 1952). The decline was in profit on sale of assets, premium income and investment income being higher. Policy payments also were higher.

Total assets rose over $10 millions to $127.2 millions. Mortgages are now 29.9% of total assets. New loans were made mainly to provide housing. Over 1,200 families were able to secure new living accommodation through Dominion Life "home" loans made in 1953.

	1953 $	1952 $
Insurance in force ..	563,134,564	512,936,661
New business	77,759,158	64,930,862
Total assets	127,190,271	117,057,903
Mtges. & sls agree.	38,034,813	34,453,394
Bonds & debent. ...	71,372,600	67,560,936
Premium income ..	13,677,798	13,780,591
Invest income	4,672,673	4,379,399
Profit on assets sold	116,436	280,232
Policy payments ...	7,578,896	6,431,356
Policy reserves	101,938,484	94,322,755
Free surplus	4,286,861	3,495,190
Liabs. to sh'holders	433,235	429,635
Interest earned	4.28%	4.15%

Financial

TORONTO MORTGAGE CO. net profit of $96,280 for 1953 was 8.1% higher than 1952 net of $89,063.

Debentures maturing during the year totaled $92,700. Renewals and new debentures were issued for $31,900. Profit of $9,965 was realized in paying off sterling debentures. New mortgage loans and renewals amounted to $1,099,522.

Investments at year-end had a market value of $499,000 and book value of $341,563, reports Chairman G. B. Strathy.

	1953	1952
Liabs. to public*	$1,451,614	$1,510,823
Shareholders' equity .	2,501,962	2,466,287
*Secured by:		
Mtges.	2,523,883	2,287,941
Office premises	45,000	45,000
Liquid assets	384,693	644,169
Total	3,953,576	3,977,110

*Includes bonds and stocks.

Net profit	96,280	89,063
Earnings per Share ...	$4.85	$4.51
Paid	3.00+0.30	3.00+0.30

Medicine Firm Changes Capital Structure

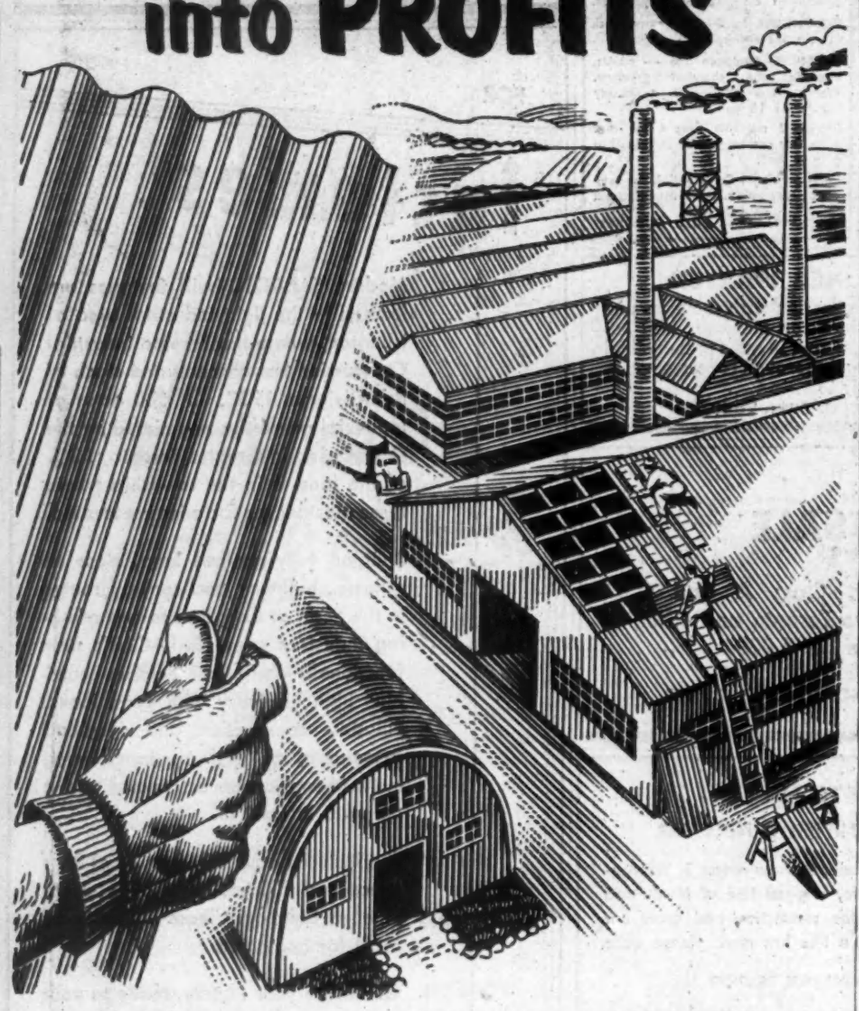
All formalities have been completed for an exchange of shares in A. W. Chase Co., Oakville, Ont., for the securities of one of its subsidiaries, Dr. A. W. Chase Medicine Co.

Holders of preference shares in the parent company are to receive, in exchange for each share surrendered, $50 principal amount of 6% bonds of the Dr. Chase Co. bearing interest from Aug. 1, 1953; one n.p.v. capital share of Dr. Chase Co.; and $10 cash. Common stockholders of A. W. Chase Co. are to receive capital stock of Dr. Chase Co. in a straight share-for-share exchange. Outstanding capital stock of Dr. Chase Co. has been subdivided into 48,420 n.p.v. shares.

At April 30, 1952, there were 8,665 preferred shares outstanding in the parent company, A. W. Chase Co.

LONGUEUIL, QUE. has sold $104,500 3% bonds due 1955-61, $56,000 4% due 1962-64, $61,000 4% due 1965-74 and $92,000 4½% due 1965-74, to Compagnie de Valeurs en Placement Ltd. at 94.85. Net cost 4.69%. Proceeds for pavings, waterworks, sewers, etc. Net funded debt at Dec. 31, 1953, $1,925,172. Population 13,080.

ALROL ALUMINUM turns OVERHEAD into PROFITS



Whenever industrial roofing and siding is needed, on new or old construction, use ALROL ALUMINUM and eliminate completely painting and maintenance costs. No painting is needed for ALROL ALUMINUM is *solid* aluminum that will not rust or rot but will give lifetime service without maintenance of any kind.

Alrol Aluminum can be used almost anywhere in industry as it is highly resistant to moisture, heat, fire, smoke, fumes and most acids. It is an ideal building product for remote districts as it is so light and easy to transport it reduces labour, shipping and application costs.

Gets the facts on Alrol Aluminum Roofing for industrial use. Contact our nearest office.

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ALROL *Executive offices and plant:* CAP-DE-LA-MADELEINE, QUE.

Sales Offices: Vancouver Calgary Winnipeg London Hamilton Toronto Montreal Sherbrooke Quebec City Amherst, N.S.

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No loss here!
and this was
a fireproof building!
This busy manufacturing plant was completely gutted by fire—WITHOUT LOSS!
The company was soon back in business in a new, modern building on the same location. While the building was under construction, the company's insurance portfolio took care of the rental charges for temporary premises. In addition the increased costs of advertising were met, payments on taxes, interest and mortgages were maintained, key personnel were kept on the payroll and the company's net profit was adjusted as though no fire had occurred.
A survey of your insurance portfolio by Cronyn, Pocock & Robinson will soon reveal any gaps in protection, not plainly evident in the mass of legal jargon of insurance policies. Such a survey could and has not infrequently resulted in increased coverage at a reduced cost.
The time to check your insurance is before a loss occurs.
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INSURANCE COUNSELLORS AND UNDERWRITING AGENTS
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Careers

This is Canada's national meeting place for executives who have positions to offer, and for those who have ability to offer

Merchandising Executive Available

Young married man with ability to analyze merchandising problems, to come up with layout and copy ideas, and to produce sound promotional advertising. Excellent education, presently employed, with background in publishing, advertising and retail merchandising.

Box 241, The Financial Post, Toronto

CIVIL ENGINEER AVAILABLE

with broad experience, proven technical and supervisory ability, capable of co-ordination of work, anxious to make final move to a progressive firm, that offers a challenging opportunity for a top-grade mature engineer, age 43, to apply his energies and abilities.

Box 240, The Financial Post, Toronto

FOR CONSULTING ENGINEERS

One Civil Engineer, M.Sc., M.E.I.C., P.Eng. (Ont.), graduated 1947 is available from the end of February. First-class designer of all types of modern structures, inventive, enterprising and with flair for structures involving complex statistical problems. Please communicate with

Box No. 245, The Financial Post, Toronto

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Starting Salary Range — $4500 to $5500

Duties include setting up new Department to purchase all City Equipment and Supplies. Apply in writing, stating qualifications and salary expected, to the City Clerk — City Hall, Kitchener, Ontario, not later than March 10, 1954.

Du Mont Television offers Vancouver Sales Opportunity

We are looking for an experienced man with an excellent sales record who is mature, sincere and willing.

The successful applicant will have an excellent opportunity for advancement with a progressive, expanding company and will be located in Vancouver, B.C. Full program of employee benefits. Write, stating previous experience and background to:

**Personnel Manager,
Du Mont Television,
6005-A Cote de Liesse Road,
Montreal, P.Q.**

PARTNER OR ASSOCIATE WANTED

Canadian business man requires an associate or partner to purchase and develop residential property in Southern United States city.

Ultimate investment $500,000--$1,000,000. Interested only in a man of integrity and foresight. Replies confidential.

BOX 236, THE FINANCIAL POST, TORONTO.

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Outstanding opportunity for fully experienced, top-flight account executive. Montreal branch of large international agency requires senior account executive to handle several of its important accounts. Group life insurance and other benefits.

WRITE BOX 246, THE FINANCIAL POST, TORONTO

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First Class Hardware Man required as manager for wholesale house located in an industrial centre in Ontario. Must have experience and be presently employed in like capacity. Top salary for fully qualified applicant. Replies will be treated in confidence. Apply Box No. 248, The Financial Post, 481 University Ave., Toronto, Ont.

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If you are a salesman owning your own car, who is interested in remuneration possible with a 30% commission rate; if you are the type of man who would like the chance of working your own closed territory, there is a first class opportunity open to you with a medical publishing firm of world wide repute. Previous experience in selling multi-volume works not essential but a definite advantage.

If you are this man, write giving full particulars of past employment, experience, age, marital status to

BOX 251, THE FINANCIAL POST, TORONTO

Clerical Methods and Procedures Analyst

Manufacturing industry comprising headquarters and divisional manufacturing operations requires a mature young man for methods and procedures work concerned with clerical operations.

A sound accounting background is desirable. Also, experience in methods work, or a demonstrated aptitude for it, is important.

Education should be of university level, either through formal education, or the equivalent in a self-improvement program.

Training will be provided through the direction of a senior executive, and opportunities will depend on successful performance of assigned duties.

Location, southern Ontario.

BOX 254, THE FINANCIAL POST, TORONTO.

GRADUATE MECHANICAL ENGINEER

With sales, Sales application and Field experience, in Automotive, Heat, Power Lines. Seeking sales engineering position or equivalent. Preferably in Toronto area. Age 30.

Box 249, The Financial Post, Toronto

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**$4170-$4920
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$3450-$4200
in British Columbia and Ontario.**

University graduation in Commerce, or Finance, or a recognized degree in Accounting. Open to qualified residents of the respective province.

Details and application forms at Post Offices, National Employment Offices or nearest Office of the Civil Service Commission.

SOLICITOR REQUIRED

Young lawyer wanted for position in Legal Department of large Corporation with Head Office in Western Ontario. Must have two or three years' experience in general practice, including real estate and mortgage work. Good future prospects.

Apply Box 239, The Financial Post, Toronto, Ontario, stating age, experience and salary required.

SENIOR EXECUTIVE

British, bilingual, 38, at present living Africa, desirous making permanent home Canada, invites enquiries from company directors needing top executive and administrative ability, particularly for the creation or expansion of export markets. Expert on African affairs, solid connections Europe. All enquiries answered fully; interviews April London, Paris or Brussels; May, New York, Toronto by arrangement.

BOX 242,
THE FINANCIAL POST, TORONTO

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Night or day job, no direct dealings with associates or public. Responsible, resourceful, unmarried, 45 year old man. Not robust but average good health.

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Minimum salary required $75 a week.

BOX 238

THE FINANCIAL POST, TORONTO

CLASSIFIED ADVERTISING RATES

Flat rate, per word 10c
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$7.00 per col. inch per insertion. (50 cents per agate line. 14 lines constitute one inch). Closing date—Copy must be in Toronto Office by Tuesday a.m. Classified and Display advertising in this section payable in advance.

CLASSIFIED ADVERTISEMENTS

POSITIONS WANTED

EXECUTIVE AVAILABLE

BROAD ENGINEERING, production and general management experience in both Canada and U.S.A. Capable of setting up and managing small to medium size manufacturing business.

BOX 223,
THE FINANCIAL POST, TORONTO.

MANAGEMENT ENGINEER

ECONOMIST, Canadian University engineering graduate; M.B.A. eastern U.S. university; U.S. citizen; background in Canadian mining, metallurgy, forest products industries; now with U.S. consulting engineering firm; experience in management, business appraisals, forecasting, market research, seeks connection with financial interests investing in Canada, U.S. location with travel preferred. Box 181, The Financial Post, Toronto.

GRADUATE ENGINEER

AGE 30, WITH EXPERIENCE in engineering and commerce in Canada and Latin America seeks permanent participation in Canadian firm. McGill graduate, married, present remuneration $8000 per annum, for further details write to Box 213, The Financial Post, Toronto, Ont.

SALESMAN AVAILABLE for Eastern Canada or for coast to coast representation. Experienced in Electronics, Home Appliances, Furniture and Hardware. Apply Box 230, The Financial Post, Toronto.

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AGENCIES WANTED

WELL ESTABLISHED business would accept one or two additional agencies for Quebec district.
Floor space for display available in an up-to-date store on St. John St.; warehouse space also available.
Financially responsible and direct to consumer sales organization. References as to character, experience and qualifications upon request. Box 243, The Financial Post, Toronto.

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MONTREAL BRANCH SALES OFFICE service at very low cost. Let us explain without obligation. MERCHANDISE BUREAU 432 West Ontario Street, Montreal.

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World Travel
Good People to Know for European Travel at reasonable rates.

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HERE IS a genuine opportunity for investors large or small. Inventor requires capital to promote a revolutionary source of cheap power that surpasses anything yet devised. The result of 54 years of research. Write S. W. B. Renouf, 121 Presland Road, Ottawa 2, Canada.

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Well rated business firm will finance any sound domestic or foreign venture on a profit-sharing basis. Write full details. In confidence.

BOX 233,
THE FINANCIAL POST, TORONTO.

CAPITAL REQUIRED

up to $50,000.00 additional working capital required by an expanding custom electrical manufacturer. Good security and or part interest.

Box 230, The Financial Post, Toronto

New Plant Will Boost Domestic Chemical List

First unit of a new chemical plant to produce chemical emulsifiers formerly imported from U. S. will come into operation at Brantford, Ont., later this year. This unit will cost about $350,000; preliminary planning is under way for a second unit.

The new plant—that of Atlas Powder Co. of Canada—will provide a new industrial outlet for large quantities of fats and oils derived from Canadian farming. The emulsifiers to be produced in the Brantford plant are used in bread and baked goods, candy, ice cream, oleomargarine, shortening, and salad dressing. Non-food applications include cosmetics, pharmaceuticals, petroleum and other basic products.

In simple terms, emulsifiers make oil and water "good mixers." A minute quantity of emulsifiers, when added to certain foods, breaks up the oil-soluble ingredients into fine particles and disperses them evenly throughout the product. Atlas will make emulsifiers by combining fatty acids with glycerin or sorbitol. Sorbitol is produced by Atlas from cane, beet or corn sugar by a hydrogenation process similar to that used in making vegetable oil shortenings.

Pembina Field Bounds Still Inconclusive

Evidence from the three important wells being drilled by Stanolind Oil & Gas Co. in the hot Cynthia-Pembina region of west central Alberta is not as yet sufficiently conclusive to indicate a large westward extension of the Pembina field.

When Shell Oil reported an oil showing in the Cardium zone in its Shell-Peers well some 8 miles to the northwest there was thought to be a fair chance that all the intervening ground would prove productive. This would include bulk of the recent 100,000-acre reservation purchase of Imperial Oil.

Two of the wells — the most southerly two — gave sufficient oil encouragement in the Cardium to warrant further testing. The third well found the Cardium sand zone tight, with no oil showings worthy of testing. The three wells are being deepened in search of the Viking sand horizon. Later the Cardium zone will be drillstem tested.

Financing Soon For New Refinery

New financing will be effected shortly by Wainwright Producers & Refiners Ltd., it's expected.

Company plans to issue $1.5 millions in 6% first mortgage convertible bonds as well as a common stock issue, details of which haven't been announced.

Financing will be handled through a group of investment dealers headed by H. C. Flood & Co., Montreal. Proceeds will go toward expansion of present refinery capacity to 3,000 barrels daily fom present 700 bbl. (The Post, Feb. 13.).

Real Estate

A Dominion-wide market place for buyers and sellers of land, residences and commercial buildings.

FOR SALE

Electrical Business in large Western City. New TV Area, Volume without TV $400,000.00 Top Location, best lines in Radio and Appliances, Will have choice of TV lines. Electrical Contracting comprises about 50% of volume. Business 25 Years old and has been well managed, showing good profits and steady growth.

Present owner will retire, $100,000.00 cash will handle.

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3600 sq. ft., second floor, 40 ft. x 90 ft., sprinklered.

Downtown—opposite bus terminal Suitable for offices or loft storage Long lease available.

CONTACT

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B. G. SMITH COMPANY LTD.
CANADA BUILDING, WINDSOR, ONT.**

Industrial Property FOR SALE

Over 30,000 sq. ft. sprinklered factory space in main 3½ storey building. Excellent shipping and parking facilities. Guelph.

For details, phone or write your own Realtor or Mr. Heine.

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Don't be caught napping. The Post provides the most complete news service available on investments. You get facts, graphs, informed market comment, penetrating analyses of profit opportunities. Get these each week in

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By mail only $6 a year

SPACE TO RENT MONTREAL

Approximately 5700 square feet on ground floor. Light on three sides. Heated. Sprinklered. Ideal for offices and showrooms. Private shipping entrance. Two private bathrooms. Extremely low insurance rate. Located in center of city. May first occupancy.

**APPLY ROOM 720 — 423 MAYOR STREET
SOMMER BUILDING**

FOR SALE

50% Interest in Vancouver Food Importing Firm (Incorp.), Well Established and Progressing Business, Leading in its Field, with continuous growth potential. Required capital: $35,000 based on net book value. Reason for sale: retirement upon doctor's advice. If desired, 50% of warehouse property, occupied by firm, could be purchased or rented. Principals only reply

BOX 247, THE FINANCIAL POST, TORONTO

OFFICE SPACE FOR RENT DOWNTOWN TORONTO

Approximately 2500 square feet on top floor of three storey building available for occupancy April 1, 1954. Windows on east and north. Elevator service, washroom facilities. Partitions now installed can be made available to incoming tenant. Rental $3.00 per sq. ft. Call EMpire 4-9201 — Mr. Chitty.

INDUSTRIAL AND COMMERCIAL BUILDINGS FOR LEASE

WE OFFER A COMPLETE SERVICE

- **SITE SELECTION**
- **BUILDINGS DESIGNED FOR YOUR SPECIAL REQUIREMENTS**
- **LONG TERM LEASES**

GRISENTHWAITE INVESTMENTS LIMITED
637 PARKDALE AVE. N., HAMILTON, ONTARIO

OPPORTUNITIES

BUSINESS OPPORTUNITY FOR SALE

Excellent income building for sale in the downtown district of Oshawa, Ontario. Now occupied by a dry goods store on the first floor, two apartments and one business suite on the second floor and a commercial occupant in the rear of the building. Rental income approximately $250.00 a month. Proprietor of main store is selling out.

Address all inquiries to

CONANT & MACDONALD

7½ Simcoe St. S., OSHAWA, Ontario

B. C. DISTRIBUTOR REQUIRED

Established manufacturing Company with expanding sales volume has immediate opening for distributor and representative for British Columbia.

REQUIREMENTS: Efficient Sales Organization covering entire province.

WAREHOUSE facilities to carry stock for prompt deliveries to dealers.

PRODUCTS: Complete line — paints, enamels and chemical products. Brands favourable and nationally known for 15 years.

Important accounts now active and a number can be greatly increased in a short time.

Correspondence Confidential. For complete information, write Manufacturer

**BOX 234,
THE FINANCIAL POST, TORONTO**

INDUSTRIAL LINES WANTED

Sound Winnipeg Sales organization with facilities and staff, require additional lines for Manitoba and adjacent territory. Now specializing in sales to industrial accounts. A conscientious and thorough coverage guaranteed your products. Apply to

BOX 244, THE FINANCIAL POST, TORONTO

FOR SALE

Highway transport, Class A and C License. Hamilton to Toronto and other privileges. Revenue $275,000.

BOX 252, THE FINANCIAL POST, TORONTO

ATTENTION

MANUFACTURERS KNITTED OUTERWEAR

British Columbia Sales Organization, show rooms in Vancouver, open to accept agency for a good line of Men's and Ladies' Sweaters. We have the connection and know our business, if interested and your line has merit please write

BOX 235, THE FINANCIAL POST, TORONTO

Information Returns Due Soon Under Income Tax Regulations

Information returns required under the Income Tax Act for the 1953 taxation year must be filed as follows:

Form		Filing Date
T.4	Return of salaries, wages and other remuneration paid	Feb. 28
T.5 Annuities	Return of contractual annuities paid	Feb. 28
U.S.T.4-5-6	Return of Amounts paid by Canadians to residents of U. S.	Feb. 28
T.5	Return of dividends, patronage payments, royalties and interest paid	Feb. 28
U.S.T.1	Return of amounts received by Canadian residents from sources within the U. S. and paid to nonresidents	March 15
T.3	Return of income of Estates and Trusts and the distribution thereof	90 days from end of taxation year of Estates and Trusts.

FOR

factories

Modern SARACINI-built factories are located in the light industrial area of Islington, where the Toronto Industrial Commission has concentrated much of its activity in 1953. Of 800 acres of industrial properties negotiated by the Commission in Greater Toronto, 53% of the land is in the township where these outstanding factories are located.

Built on fully-serviced land, close to rail, air, highway and seaway routes in the heart of Canada's fastest growing industrial area, SARACINI's new functionally-designed factories combine high efficiency with good looks. Pillarless construction and overhead suspension, oil-fired air conditioning make them economical to run and a pleasure to work in.

The factories have 5,170 sq. ft. of floor space and 600 sq. ft. of office space in each building. There is plenty of room for expansion.

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COMPLETE with illustrative charts and diagrams for easy use, "How To Forecast Business Trends" gives you the *factual method* of anticipating changing conditions—shows you how to *translate trends into actual profits for your firm!* This complete, 128-page handbook was written by Dr. H. E. Luedicke, the Chief Economist and Editor of The Journal of Commerce. It is yours — absolutely FREE! — with a money-saving J of C trial subscription of 65 issues for only $6.00!

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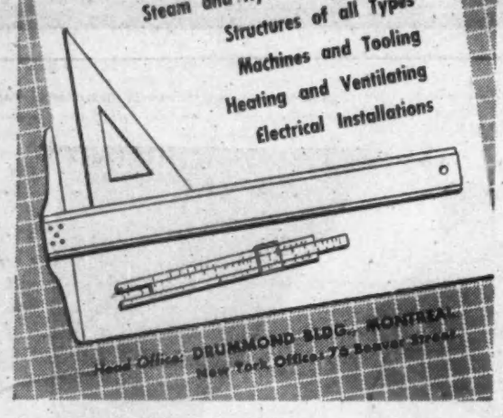

Head Office: DRUMMOND BLDG., MONTREAL
New York Office: 75 Beaver Street

GROWING WITH CANADA...

The **EXCELSIOR LIFE** *reports on '53*

★ **NEW INSURANCE** issued (including group life and revived policies)—**$48,517,459.00** —as compared with $42,945,928.00 in 1952.

★ **INSURANCE IN FORCE** (including group life) → **$345,285,943.00** — a gain of $28,291,420.00.

★ **ASSETS—$67,946,645.64**—an increase of $5,404,487.28.

★ **INCOME FOR YEAR—$11,950,445.61** —including $9,022,967.69 in premiums.

★ **FOR THE BENEFIT OF POLICYHOLDERS**—the Company distributed **$8,289,518.98:**

$1,382,959.01 in payment of DEATH CLAIMS.

$2,206,587.97 to living policyholders in dividends, matured endowments and annuities, disability payments and surrender values.

$4,699,972.00 to policy reserves for increased protection to policyholders.

BRANCH OFFICES IN PRINCIPAL CITIES FROM COAST TO COAST

The **EXCELSIOR INSURANCE LIFE COMPANY**

A STRONG CANADIAN COMPANY

Trend of Business

Biggest-ever program of new capital investment for Canada this year. Intentions to invest estimated at $5.8 millions for 1954. Increase of 2.8% over last year. Private business will expand more than governments. Proportion of gross national product put into capital investment will remain around 23.5% marked up last year.

Beef in new investment this year will come from spending on construction. This category will be up estimated 6%, if intentions all fulfilled. Total of $3,865 millions new construction, which leaves out big spending on construction repairs.

Increases strong in schools, churches, hospitals, trade and financial construction.

Slight reduction in plans to spend on new machinery and equipment. Present intentions are $1,973 millions for 1954, or 1.5% less than last year.

Wheat supplies in four major exporting countries on Jan. 1 this year, available for export or carryover, 22% greater than year earlier.

Margarine output slid somewhat behind last year in January.

Soft drink production has doubled since war's end, on annual rate. Output this January down 14% from same month last year though.

Do they fire unsatisfactory employees quicker in a looser labor market? No statistics on infliction of business "death penalty," but people turned down for unemployment insurance benefits because discharged for misconduct running 6% ahead of year ago at latest.

Unemployment insurance benefits latest month $16.9 millions or 54% above year earlier.

Chain hardware stores sold 10% more in 1953 than year before. Food chains gained 10%. Other increases were: variety stores, 5%; women's clothing chains, 4%; drug chains, 4%; shoe chains, 3%.

Department store sales in 1953 were up 3% for whole country. Strong points were Alberta and Saskatchewan, sales up 6% each; B. C., up 5%; Quebec up 4%. Ontario was up 3%, Manitoba, 2%. Atlantic provinces showed decline of 1%.

Ladies' apparel and accessories departments of department stores did not do as well as women's clothing chains did. Department stores showed 2% gain only in this class of merchandise. Men's clothing down 2% for year.

Photographic equipment and supplies sales in department stores up 14% in 1953, over year before. Sporting goods and luggage departments sold 10% more than year before.

Radio and music departments of department stores sold 32% more in 1953. Gain in major appliances was 11%; in furniture, 8%.

New housing units completed in 1953 now estimated at 96,839 units, about one third more than year before. With conversions of existing dwellings, 1953 completions total 100,663. New units started total 102,409.

Apartments and flats accounted for 20% of housing completions last year, compared with 16% the year before.

Biggest gain in new housing built was in Saskatchewan, up 92%, to 4,047 units. Alberta spurted 59% ahead of its achievement the year before, to 9,854 units. Alberta passed British Columbia for the first time; in B. C., 7,944 units were built. Ontario total rose 28% to 35,173; Quebec, up a third, to 29,803; Newfoundland, up a third to 1,480; Prince Edward Island quadrupled to 182; Nova Scotia, an increase of 80% to 2,160; New Brunswick, up 14% to 1,402; Manitoba, up 52% to 4,794.

Cheques cashed in 1953 up 10% for 35 centres, an all-time high. Ontario up 12%; Atlantic provinces up 11%. Other 12-month gains: Prairies, 10%; Quebec, 7.5%; B. C., 6%. Biggest 12-month gains in London and Kitchener, up 26% and 24% respectively. Other big gains included Toronto, up 16%; Montreal 8%.

Major Weekly Indicators

	Latest Week	Week Ago	Month Ago	Year Ago
Department store sales (% ch. from year earlier)	....	—1.8%	+8.9%	+8%
Carloadings, total	84,455	64,294	83,334	113,557
Eastern Canada (cars)	57,619	44,283	52,669	72,821
Western Canada (cars)	26,836	20,011	30,665	40,736
Iron & steel (Mfg'd) (cars)	1,547	1,006	1,361	1,814
Ores, concentrates (cars)	3,188	2,141	3,046	3,638
Base metals (cars)	597	456	883	1,298
Lumber, timber, plywood (cars)	3,246	2,383	3,117	5,007
Cement (cars)	738	456	522	1,078
Motor vehicle prod. (units)	10,001	10,113	9,143	9,551
Bus. failures 4-wk. moving av. (No.)	30.5	25.8	14	21
Bank of Canada holdings of securities ($ millions)	2,273	2,270	2,263	2,196
Short term governments ($ millions)	1,353	1,355	1,345	1,376
Long term governments ($ millions)	897	890	895	806
Other securities ($ millions)	23	23	23	13
Canadian dollar (U.S. cents average)	103.520	103.139	102.709	102.525
T.S.E. industrials index	324.02	327.77	320.04	317.55
Bank Clearings				
Montreal ($ millions)	449	610	403	356
Toronto ($ millions)	561	723	568	403

Facts by the Month

	Latest Month	Month Ago	Two Mos. Ago	Year Ago
WHAT WE PRODUCE—				
In all industries (Index)	x251.2	254.3	237.0	246.1
In factories (Index)	264.8	268.0	249.9	263.8
Total nondurable goods (Index)	231.8	232.5	235.1	232.4
Food & bev. (Index)	244.9	245.5	253.0	241.1
Textiles (Index)	173.5	178.1	192.7	206.8
Clothing (Index)	158.5	165.9	169.8	172.9
Chemical products (Index)	291.8	292.8	288.4	275.7
Total durable goods (Index)	316.4	323.5	324.5	312.2
Iron & steel products (Index)	294.2	292.5	288.2	302.4
Primary iron & steel (Index)	318.9	322.1	305.9	310.1
From mines (Index)	193.9	199.9	212.2	186.5
Metals (Index)	104.1	104.2	114.6	119.2
Nonferrous smelting, refining (Index)	225.8	223.4	227.2	211.8
Gold (Index)	78.9	79.6	96.7	112.3
—From farms				
*Hogs graded (000)	386	491	444	431
*Cattle delivered (000)	153	147	194	126
Flour (Index)	158.8	150.4	142.6	186.5
—From sea				
E. Coast catch ($000)	2,230	1,348	1,551	3,309
W. Coast catch ($000)	1,101	1,799	3,267	952
—From forests				
Newsprint (000 tons)	473	473	511	463
Pulp (000 tons)	742	757	799	705
—In powerhouses				
Electricity (Index) (seasonally adjusted)	225.1	241.1	241.8	225.4
WHAT WE SELL—				
Retail sales ($ millions)	1,002	1,088	992	1,007
Dept. store sales ($ millions)	142	113	97	139
Wholesale sales (value) (Index)	361.0	398.9	409.5	362.3
Mfrs. outstdg. orders (value) (Index)	70.9	72.4	76.9	99.0
*Pass. car sales (units)	19,448	21,236	24,822	19,315
WHAT'S ON HAND—				
Mfrs. inventories (value) (Index)	187.8	187.4	188.5	179.5
Dept. store stock/sales ratio	2.6	2.9	3.2	2.1
SPENDING, SAVING POWER—				
Labor income ($ millions)	1,009	1,012	993	946
Dividend payments (Index) (annual rate)	243.1	241.4	245.0	244.6
JOBS—				
Employment (Index)	113.9*	115.9	116.9	116.1
Mfg. employment (Index)	110.9*	113.1	115.2	113.5
CONSTRUCTION—				
Contract awards ($ millions)	79	126	158	120
FOREIGN TRADE—				
Exports ($ millions)	361	355	348	334
Imports ($ millions)	339	332	338	345
MONEY—				
Money supply ($ millions)	5,024	5,197	5,236	5,139
*Cheques cashed ($ millions)	12,468	12,977	11,936	12,386
Savings deposits ($ millions)	5,034	5,148	5,226	4,916
Current public loans ($ millions)	3,790	3,718	3,648	3,243
Life insurance sales ($ millions)	260	225	225	224
PRICES—				
Consumer price (Index)	113.7	113.8	116.2	113.7

Index bases: production, wholesale sales 1935-39=100; employment, payrolls, 1949=100; manufacturers inventories 1947 average=100; consumer price index, 1949=100; manufacturers outstanding orders, Dec., 1952=100.

STRATEGIC MATERIALS—Production and Supply—

	Latest Month	Month yr. ago	Yr. to date	% chge. yr. to date
*Steel ingots and castings (000 tons)	305	320	4,116	+11
Primary copper (000 tons)	17.4	21.3	236	Unch.
Nickel (000 tons)	11.5	11.4	217	+21
Cement (000 bbl.)	1,909	1,678	20,635	+22
Lumber (million fbm)	333	404	6,610	-4
Exports (million fbm)	264	331	3,109	+0.1

*New item this week.
xBase period changed from 1939 to 1949=100
Data for your file: The Financial Post, February 20, 1954.

How Our Banks Rank With U.S.

How do Canadian chartered banks rank in volume of deposits compared with banks of the United States?

A compilation prepared by The American Banker of New York gives the following position to nine Canadian chartered banks, not including Barclays Bank (Canada), in relation to the 300 largest banks in the United States: Royal 5; Montreal 9; Canadian Bank of Commerce 11; Nova Scotia 22; Imperial 39; Toronto 46; Dominion 48; National Canadian Bank 49; Provincial 127.

You can't afford to miss THIS SHOW

THE 1st CANADIAN REFRIGERATION and AIR CONDITIONING SHOW
in the COLISEUM, TORONTO
Tues.-Wed.-Thur. — February 23-24-25

For the first time in the history of the industry in Canada, you will have the opportunity to view a COMPLETE display of the newest developments in refrigeration and air conditioning—all under one roof.

You'll see over a quarter of a mile of exhibits displaying the latest and finest in equipment for commerce, industry, distribution and the home. Admission the first two days will be by TICKET ONLY, giving you an unhurried, uncrowded opportunity to examine, compare and discuss new types of equipment, appliances and components especially applicable to YOUR requirements. (Show will be open to public on last day.) So you don't have to leave the building "for lunch or anything" there will be: Dining Room, Snack Bar and Lounge facilities.

Plan to attend! Write today for FREE TICKETS for yourself and staff to: Sec'y-Manager, 1st Canadian Refrigeration and Air Conditioning Show, Room 1209, 137 Wellington St. West, Toronto, Ont.

(Sponsored by the Canadian Refrigeration Manufacturers Association)

Here are some of the things you will see . . .

A complete line of

Domestic Refrigerators including Automatic Defrost and Two-Temp Models
Upright and Chest type Food Freezers
Ice Cream Cabinets
Refrigerated Vending Machines
Automatic Ice Cube Makers
Automatic Flake Ice Makers
Water Coolers
Beverage Coolers
Condensing Units, sealed and open
Cooling Coils and Unit Coolers
Panel Coolers and other low sides
Automatic Defrost Systems for low temperature applications
Soda Fountains
Back Bars
Evaporative Condensers
Cooling Towers
Insulation, all kinds
Refrigerants
Refrigerant Piping
Dryers and Strainers
Controls, Refrigerant
Controls, Electrical
Valves and Fittings
Thermo and Automatic Valves
Solenoid Valves
Temperature Controls and Thermometers
Industrial Refrigerators
Heat Pumps:
"Heating Homes with Refrigeration"
Refrigerated Store Fixtures
Self-Serve Cases
Frozen Food Cases
Cold Storage Doors
Freezer Doors
Reach-In Boxes
Walk-In Coolers, Steel, Aluminum, Wood
Air Conditioning Equipment
Room Air Conditioners
Dehumidifiers
Motors
Refrigerator Hardware

Improvements and New Developments galore in every phase of Refrigeration and Air Conditioning
Many other products made by Canadian Refrigeration Manufacturers, Ranges, Washers, Dryers, etc., etc.
In fact, a COMPLETE exposition of hundreds and hundreds of products to help you . . .

MAKE SALES SOAR IN '54

Here is the story...

on Daily Newspaper coverage

OF THE TORONTO A.B.C. CITY ZONE

TOTAL NUMBER OF ADULT READERS OF ALL THREE TORONTO DAILIES - - 716,555*

***TOTAL ADULT READERS OF EACH PAPER:**

TORONTO DAILY STAR	452,876	63.2%
PAPER "B"	299,635	41.8%
PAPER "C"	206,321	28.8%

***EXCLUSIVE ADULT READERS:**

TORONTO DAILY STAR	297,066	41.5%
PAPER "B"	167,795	23.4%
PAPER "C"	47,942	6.7%

CIRCULATION: A.B.C. Publishers' Statements six months ending Sept. 30, 1953

	A.B.C. CITY ZONE	TOTAL
TORONTO DAILY STAR	220,604	384,640
PAPER "B"	149,371	225,142
PAPER "C"	120,627	239,692

AGATE LINE RATE

PAPER "B" $2.45 PAPER "C" $2.30
TORONTO DAILY STAR $1.69

SOURCE

* Sanders Marketing Research — "Study of Daily Newspaper Audiences in the Toronto A.B.C. City Zone" December, 1953 (All readers 15 years of age or over), and A.B.C. Publishers Statements ending September 30th, 1953.

A copy of the Daily Newspaper Audience Story in the Toronto A.B.C. City Zone will be gladly supplied upon request.

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80 King Street West, Toronto

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S-54

ANNOUNCEMENT

EDGAR G. BATTEN

Mr. Edgar G. Batten, whose recent appointment to the position of Ontario Sales Manager is announced by Reliance Electric and Engineering (Canada) Limited, Welland. Mr. Batten will direct sales operations of the company's St. Catharines, Hamilton and Toronto offices and will also serve as Toronto District Manager. His former experience makes him well-known to both electrical and mechanical contracting firms throughout Ontario.

What's New

New Products, Applications and Ideas Gathered from World-Wide Sources or Made in Canada for the First Time

Cheaper T.V.

New low-priced TV antenna rotor uses a precision-engineered control mounted near the receiver instead of a costly electrically operated turning mechanism. Mounting is of weather-proof heavy duty alloy casting, housing sturdy radial and vertical thrust bearings that give smooth, fingertip control. Scale permits calibration of maximum strength positions for all channels after installation and "drifting" or "coasting" of the antenna is eliminated by positive action locking mechanism. Connection between antenna and mounting control unit is by means of special weatherproof, non-stretch cable.

• • •

Working Hard?

Device for providing visible record of the busy and idle time of plant machinery is designed to help improve machine productivity. Also valuable in time studies to set rates or check on the exactness of processing operations. Requiring only a wire connection to its motor, it can be located anywhere, and recordings, made by sapphire stylus on wax-covered chart, can be seen as the machine operates. Unauthorized opening is discouraged since chart shows whenever the case is locked or unlocked. Different machines available for various time cycles.

• • •

Electric Saw

Now available in Canada is electric saw which features effortless height adjustment from zero to 16 in., instant "angle-set," "one-position" operation and an electric motor-driven self priming pump. Companion blades cut hard and soft materials equally well and are virtually unbreakable, claim the manufacturers.

• • •

Protection for Steel

Protective fluid with a plastic base for the treatment of steel, preserves exposed mechanisms from corrosion and at the same time provides an efficient lubrication which does not dry or flake away when exposed to the elements.

• • •

Quiet Cutter

Muffler for gasoline-powered lawn mower cuts down very substantially on noise without reducing the machine's efficiency. By forcing exhaust gases through small holes, it's believed, frequency of the sound waves is increased to such an extent that much of the sound is put out of the human ear's range.

• • •

For Budding Hockey Stars

Portable, plastic ice-skating rink folds like a blanket. Supplied with a low, roll-up fence, the rink is spread on level ground with edges draped over the fence and then filled with water.

• • •

Anti-Pyro-Panel

Self-extinguishing, fire-resistant translucent Fiberglas panels, made by combining resins and Fiberglas under heat and pressure, are designed for highly specialized installations in critical fire areas. Available in standard corrugations or flat sheets and in three colors — maize, light green and opal; they have good weathering qualities and maintain adequate color stability.

• • •

Floating Flier

Line for fly fishing is said to be heavy enough for casting, but is covered with a chemical containing microscopic gas bubbles which makes the line float indefinitely.

• • •

Weed Wetter

Safe and convenient cigarette extinguisher for cars fastens easily on dashboard or steering post. Designed for dousing of cigarettes, it has spill-proof water reservoir and can be refilled with ease. A sure way of "putting out" cigarettes, it prevents flying sparks, eliminates the annoyance of ash trays crammed with smouldering butts and prevents diversion of attention from the road. Made of polystyrene plastic, it comes in two, two-tone combinations — red and grey or green and grey.

• • •

Sure Step

Non-slip feature of wear-resistant material for heavy duty stair treads is attributable to a material of molded rubber compound containing a high percentage of cracked cotton frictioning. Raised diamond or grooved pattern provides extra grippage as well as a self-cleaning action and drainage. Provided in a variety of colors, they can be cut to step and tread size desired.

• • •

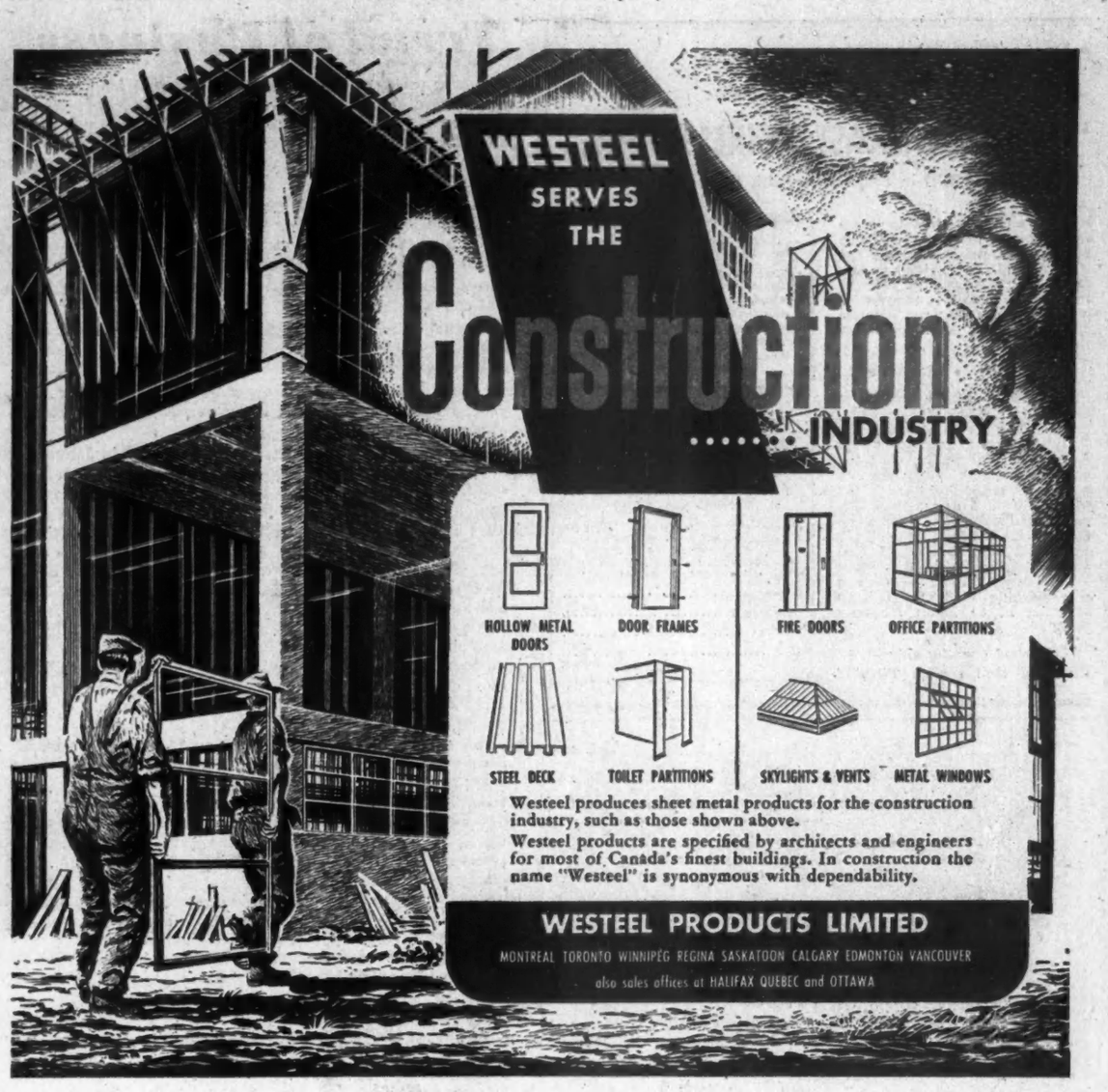
New Catalogues

Dominion Engineering Co. Ltd., Lachine, Que. Bulletin No. 368-53 is a 40 page illustrated booklet describing in detail this company's Gear Units.

ATTENTION:

Canadian Manufacturers and Distributors

Publicize your new products. Send The Post news for mention in this column.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Westeel produces sheet metal products for the construction industry, such as those shown above.
Westeel products are specified by architects and engineers for most of Canada's finest buildings. In construction the name "Westeel" is synonymous with dependability.
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COURTESY and COMFORT are yours to enjoy IN BOTH WINDSOR and DETROIT

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WILSON B. NORTON, President and Managing Director

FRENCH-SPEAKING
FRENCH-READING
FRENCH-THINKING

FRENCH FARM FAMILIES

—take in $1 in every $5 received by *all* Canadian farm families—roughly $600 million per year...

—present a great and growing market for a wide variety of goods and services, well worth developing...

—cannot be reached at all in English media, and not effectively or economically in urban French...

—CAN be reached effectively and economically through a respected, influential French farm medium...

Many businesses with real possibilities of sales expansion in this big and receptive market are not realizing those possibilities because their advertising, effective elsewhere, is "off-target" in this special field. La FERME's experience and information are at your service.

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Dominion Life
ASSURANCE COMPANY
Since 1889
HEAD OFFICE: WATERLOO, ONTARIO

HIGHLIGHTS OF 1953

NEW BUSINESS $77,579,000
AN INCREASE OF OVER $13,000,000

BUSINESS IN FORCE $563,134,000
AN INCREASE OF OVER $50,000,000

ASSETS $127,190,000
AN INCREASE OF OVER $10,000,000

PAID OR SET ASIDE
FOR POLICYHOLDERS & BENEFICIARIES
$15,594,000

A complete copy of the Annual Report for 1953 may be secured from any of our Branch Offices, which are located in principal cities, or from the Company's Head Office at Waterloo, Ontario

1889 • 65 Years of Service • 1954

54-C

COMPANY REPORTS

To assist readers in appraising and comparing company financial statements, The Financial Post has a uniform method of presenting corporation accounts. Variations from the companies' published reports are footnoted.

Beverages

ORANGE CRUSH LTD. net profit of $249,546 for year ended Oct. 28, 1953, was 91.8% higher than previous fiscal year's net of $130,133.

Consolidated net sales were equal to the previous year, reports Chairman and President J. William Horsey, but wages and other operational costs in general show substantial increases both in Canada and U. S. Provision for depreciation and write-off of containers was $30,685 higher than a year ago, due mainly to increased cost of containers in relation to deposits.

Loss of $85,059 on obsolete and worthless dispensers, tools, dies, etc., was occasioned by major advances in engineering techniques and designs, and was charged to surplus.

Annual meeting is Feb. 25.

CONSOL. INCOME ACCOUNT

Years Ended:	Oct. 28 1953	Oct. 29 1952
Net earnings	$726,471	$500,350
Add: Other income	6,290	28,663
Less: Bond int.	21,000	23,366
Bank & oth. int.	37,487	60,785
Depreciation	280,585	247,493
Inc. tax res	*122,402	47,670
Minority int.	21,771	11,589
Misc. chgs.	.....	6,486
Add: Asset sale profit	.....	311
Net prof. & surp.	249,546	130,133
Times Bond Interest Earned:†		
Before depr.	32.81	18.82
After depr.	19.45	8.23
Earnings per Share and Dividend Record:		
Common	$0.59	$0.31
None paid.		

*After reduction of $85,000 on application of losses in prior years.
†After deducting bank & other interest.

CONDENSED CONS. BALANCE SHEET

As at:	Oct. 28 1953	Oct. 29 1952
Cash	$959,561	$409,300
Accts., etc., rec., less res.	579,768	651,642
Deposit	.....	26,662
Inventories	1,146,328	1,285,732
Total curr. assets	2,625,797	2,433,336
Advtg., pre. exp.s	111,046	112,078
Inv. in subs. & affil.	12,662	5,547
Containers	648,963	649,029
Misc. assets	19,273	119,272
G'will, franch., etc.	4,127,576	4,169,276
Fixed assets*	1,522,981	1,592,516
Total assets	9,068,398	9,081,854
Bank loan	319,000	271,500
Accts., notes, pay.	526,002	662,507
Income tax pay.	44,041	62,237
Total curr. liab.	889,043	996,244
Funded debt	1,425,000	1,425,000
Minority int.	470,427	562,718
Ref. dep. on cont'rs	307,673	285,324
Capital stock	5,408,233	5,408,233
Earned surplus	568,022	403,535
*After depr. of	1,325,658	1,368,853
▲Included in curr. assets in co's accounts.		
Working capital	1,736,754	1,437,092

Textiles

SCYTHES & CO. net profit of $78,909 for year ended Nov. 30, 1953, was 18.8% higher than previous fiscal year's net of $66,442.

Sales volume was reduced in both physical and dollar terms, reports President J. A. Scythes. Capital expenditures amounted to $60,515.

CONSOLIDATED INCOME ACCOUNT

Years Ended Nov. 30:	1953	1952
Net earnings	$178,483	$162,817
Less: Deprec.	26,576	19,875
Tax prov.	73,000	76,500
Net profit	78,909	66,442
Less: Pref div.	13,858	13,972
Com. div.	70,080	70,080
Deficit for year	4,979	17,330
Earnings per Share and Dividend Record:		
Preferred	$7.10	$3.96
Paid	1.25	1.25
Common	1.30	1.05
Paid	1.40	1.40+*0.40

*Applicable to 1951 earnings; paid out of surplus at Nov. 30, 1951.

CONDENSED CONS. BALANCE SHEET

As at Nov. 30:	1953	1952
Cash & Dom. bds.	$85,099	$65,607
Accts. rec., less res.	485,461	510,540
Life ins., c.s.v.	128,805	123,156
Investments	48,985	49,100
Inventories	766,049	819,560
Total curr. assets	1,382,399	1,367,963
Invest. assoc. co.	110,000	110,000
Misc. assets	2,701	6,928
Fixed assets*	435,538	391,853
Total assets	2,070,638	2,076,744
Accts. & tax. pay.	367,785	368,922
Divds. pay.	20,972	20,972
Total curr. liab.	388,757	389,894
Capital stock	380,250	380,250
Capital surplus	149,322	149,322
Earned surplus	1,152,299	1,157,278
*After deprec. of	594,288	577,448
▲Less res. of	12,480	9,773
Working capital	1,133,642	1,178,069

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Poor Man's Tax Court Can Save You Money

Changes Needed in Setup Of the Tax Appeal Board?

So you don't think you owe Ottawa that much money?

There's one way to find out: the Income Tax Appeal Board.

Here's a special Financial Post report on the "poor man's tax court," where you can take legitimate complaints, get a ruling. The Post report discusses, too, some proposed changes, and how they would affect you.

By PAUL DEACON

On Feb. 28, just a few days away, Canadian corporations will once more have completed part of the annual ritual that is as much a part of the democratic process as voting: the filing of returns for income tax purposes.

The forms due the end of February are information returns on employees' salaries and wages, and similar items. Within a couple of months, their job of reporting to the tax collector will be completed. By that time too, nearly three million Canadians will have gone through the less involved but still burdensome procedure of filling out their personal income tax forms.

Just as surely as there are taxes to pay, there will be disputes between the tax collector and the taxpayers over how much is owed.

The squawks, of course, are a democratic right too. If you think the Government's calculation of your tax liability is too high, you can take the matter up with the tax collecting department — the Department of National Revenue.

And if the department still holds to its original decision, and you still don't agree with it, you can take your case before the Exchequer Court of Canada, or before another, newer body — the Income Tax Appeal Board.

This Appeal Board, which just recently completed its fifth year of operation, bears the big burden of settling controversies on income tax matters that the taxpayer and the National Revenue department don't manage to settle themselves.

As more and more appeals have come before the Board (it heard more than 300 last year), its importance has grown to an extent that the Board itself has become the centre of some controversy.

This controversy over the Board is a question of degree — of shade rather than straight black or white. The main weight of opinion seems to back the Board as "a good thing" but there's less agreement as to "how good."

And most of the argument so far has been confined to legal and accounting circles, because the lawyers and the accountants are the people who have the most frequent contact with the Board and its activities. They're the people who are called on to give expert advice on the more and more complicated business of filing returns.

But the discussion that has been aroused recently over the Board has significance for every company and every individual paying income tax.

History of the Board

To get the background on this discussion, you have to go back a bit in Canadian income tax history.

Until 1949, the Department of National Revenue was the assessing and collecting agency for federal income tax, and yet at the same time it was the only agency apart from the Exchequer Court to which taxpayers could appeal against its own assessments.

Furthermore, the Minister of National Revenue had wide discretionary powers in deciding what allowances, deductions and so on could be given to a taxpayer, and there was no appeal from the decision as such. The courts could not give a different judgment. They could only refer cases back to the Minister for further review.

Finally after many representations to the Government requesting overhaul of the Tax Act, and after review by a special Senate committee, new legislation was passed by Parliament in 1946 providing for the setting up of an Income Tax Appeal Board.

The Board was given power to correct or throw out income tax assessments made by National Revenue. It was to be a court of record, could summon witnesses and compel them to give evidence.

One of the main thoughts behind the setting up of such a board was to provide a court of easy access — one to which taxpayers could go to air their grievances at a minimum of expense. The cost of taking a case to the Exchequer Court, it was felt, precluded many taxpayers from contesting in court assessments which, rightly or wrongly, they regarded as unfair.

So now anyone making an appeal merely has to file three copies of his notice of appeal with the Registrar of the Board, together with a fee of $15.

It was provided that even the $15 should be returned to the appellant if he "receives any of the relief sought on the ultimate disposition of the appeal by the Tax Appeal Board, the Exchequer Court or the Supreme Court of Canada." No costs are awarded and no other fees are charged to the appellant, no matter how the case goes.

Board Is On the Go

The members of the Board travel right across the country, hearing appeals wherever there is a district tax office. There are no fixed times of the year for these trips, but distant places are visited when the number of appeals justifies the journey. As it has worked out, board members have been visiting west and mid-west cities about twice a year, the more heavily populated eastern cities as much as six times a year.

At the moment there are three hearing cases — the chairman, Fabio Monet, and two members, R. S. W. Fordham and W. S. Fisher. A fourth, Cecil L. Snyder, has recently been appointed assistant chairman and will participate in his first appeal board hearing next week in Toronto. All four are Queen's Counsel. Registrar is W. O. Davis, Q.C.

Taxpayers have made increasing use of the new method of having their day in court. The Exchequer Court heard an average of five tax cases a year during the 30 years prior to formation of the Appeal Board. Board members heard 120 cases in their first year, 1949, and the total last year is estimated at more than 300.

This record in itself is evidence of the need of such a body. It's a need which isn't likely to diminish materially, although the more cases the Board hears, the more decisions will become available for study by those considering appeals. Undoubtedly, appeals that might be launched today won't be taken before the Board in the future because by that time, the point at issue may have been covered fairly conclusively in previous cases.

There was some thought that with the Government's recent measures to reduce the discretionary powers of the Minister of National Revenue, substituting therefor more comprehensive provisions in the Income Tax Act, there would be less need for the Appeal Board.

However, the Board is providing a most useful service in building up a body of decisions based on the new income tax laws. That takes many years and many cases.

Moreover, it gives taxpayers a place in which they can let off steam — an intangible value but a real one. National Revenue officials could be endowed with the wisdom of Solomon and the patience of Job and still have run-ins with their sources of revenue. The law hasn't been devised that won't give rise to at least some variance in interpretation. Having a body to which the argument can be referred, involving a minimum of cost, is an important asset in our present tax system.

Why the Argument Now?

With much in its favor, what is causing the current discussion over the Board?

Basically, it stems from the different ideas on the functions the Board should perform in our tax appeal setup. The Board is still something of an experiment and there have been many suggestions on present methods and its future development.

Some contend that the Board should be a full court in every sense, either as a section of the Exchequer Court specializing in income tax matters or as a junior organization qualified to hear appeals involving amounts below a specified limit.

Others claim that the board has become too much of a court already and has got away from the informal body some had hoped for — a body to which taxpayers could go to straighten out tax problems cheaply before they got to the "court" stage.

At the moment, the Appeal Board's status lies somewhere between these two types.

Appeals can go straight to the Exchequer Court without being heard by the Appeal Board if the taxpayer so wishes.

Decisions of the Appeal Board may be appealed to Exchequer Court, in which case the Exchequer Court may, according to a ruling by the President of that Court, hold an entirely new hearing, ignoring if it chooses all the evidence submitted to the Appeal Board and the Appeal Board's decision. In lawyers' language, it's a "trial de novo."

From Lawyer's Point of View

Stuart Thom, chairman of the Canadian Bar Association's taxation section (but speaking personally rather than for the association) pointed out some of the effects of this situation in the discussions on the appeals board held at the Canadian Tax Foundation conference in Winnipeg recently:

"If the proposition advanced in the Robert Simpson Co. case (ruling an appeal to the Exchequer Court a "trial de novo") is correct, then the Minister of National Revenue by the mere act of appealing from an adverse decision of the Board turns it into so much waste paper.

"Possibly the designer of the system intended it to be this way from the beginning. If it is the policy of the Government to maintain this position in all future cases where it is the appellant from the Board, its attitude towards the Board is pretty well implied and I suggest that it should be made specific by suitable amendments to the Statute. The taxpayers will then approach the Board under no illusions that a win will mean anything if the Department dissents therefrom."

This view was contested to some extent by others at the tax meeting. Robert Dale-Harris, for instance, a chartered accountant member of the Foundation, said that while a taxpayer may be forced to go from court to court, with attendant costs, if the Minister appeals a decision favorable to the taxpayer, he had seen "only occasional evidence of this practice."

"I am less influenced by this contention," he said, "than I am by the allegation that the Department, in making assessments, refuses to be bound by Board decisions. One surely is entitled to expect that the Board's judgments, if not appealed by the Minister, will form the basis for future assessment of similar situations."

Traveling Same Ground

G. F. Curtis, Dean of the University of British Columbia's law faculty, agreed that it was anomalous that, one tribunal having inquired into the facts, another should travel the same ground.

"It looks like a wasteful duplication of process. In the same way, the chance to begin tax litigation either in the Exchequer Court or before the Board is also an anomaly."

But, he argued, a few anomalies of this sort shouldn't upset people too much at the present stage of the Board's life. "Any proposal for a structural change at the present time is likely to be countered with the practical conclusion that the system, on the whole, is working very well as it is."

He pointed out that the opportunity to begin in the Exchequer Court and by-pass the Board gives a taxpayer a chance to avoid any delay and expense involved in going to the Board, if he feels his case warrants the expense of proceedings in the Exchequer Court.

More frequently, he added, until a case has been developed before the Board, a taxpayer can't get a clear idea of whether or not he should go through the more costly and elaborate appeal to the Exchequer Court.

However, he agreed that if the recent ruling which makes an appeal to the Exchequer Court a trial de novo, is to stand and not be changed by legislation, "it will tend to reduce proceedings before the Board to a preliminary skirmish, with the real contest to come later in the Exchequer Court."

There are important objections to putting the Appeal Board on a "formal court" basis, however. The Board is often called "the poor man's tax court." If all the requirements of a full court were put into effect in order to clear up its exact status, many advantages inherent in its nickname would disappear.

Oppose Formal Court

Appellants would have to be represented in court by lawyers. As it is now, the taxpayer can plead his own case, or bring along his accountant or even a friend to argue his case for him. One man turned up with the owner of a gas station to plead his case for him, because he felt his friend was more up-to-date on tax intricacies than he was himself.

Formal statements of claim would have to be prepared by both sides, usually involving a further reply by the appellant to the brief prepared by the department. The procedure now is merely to file notice of appeal, giving supporting reasons, with the department then supplying the board with the necessary documents on the case.

While the Board sticks closely to normal court procedure, it doesn't necessarily arrange for a full transcript of the evidence to be taken. It's up to the member hearing the case to decide whether or not he wants a transcript. Recording of the proceedings would be obligatory in a court.

All this sort of thing costs money. If the Board lost its informal approach, it would simultaneously lose its advantage as a "court of easy access," it's held.

On the other hand, it is contended by some that the very informality of the Board setup encourages poor preparation of cases in some instances. A poorly prepared case may be lost before the Board, and the taxpayer may decide not to appeal, even though his chances of winning in the higher courts — because it would require better preparation — might be good.

Departmental Responsibility

A criticism of the current setup is that the Board is one of the Department of National Revenue's responsibilities. This responsibility should be taken from the National Revenue and given to the Department of Justice, it's felt.

This is a matter of principle, and does not imply that the Board is subservient to the National Revenue Department or that department officials throw their weight around to try to influence Board decisions. In fact, it has been contended by some that the fact that the Board is a National Revenue responsibility would tend to make Board members lean over backwards to avoid any suggestion of liaison with National Revenue. Most opinion, however, appears to favor bringing the Board under the Justice Department.

A point on which there is much agreement among the tax experts is that the Board membership should be increased. The number of cases coming before the Board has greatly increased and up till now there have been only three hearing the cases. This has meant a huge load and has caused delays in judgments.

Recent appointment of a fourth should help, but it still leaves a lot of cases per man.

In this connection, many contend that the Board have two members sit at the hearings. Because of the great number of cases and the small manpower, members have been hearing cases singly. The work would be more evenly spread — the two could divide the work of writing the judgments between them — and they could have each other's help in coming to a decision.

"Sitting two" would probably require a further increase in board membership, but it would speed up the handing down of decisions and ease the strain on members who are now having to hear three and four cases a day and then prepare judgments in between Board sessions.

The additional cost is justified, it's contended, not only by the greater benefits of speed and less strain but also by the importance of income tax in our present scheme of things. Corporation and personal income taxes are bringing in 55% of our total federal revenues — more than $2.4 billions in 1953. It's worthwhile spending some money to make sure judicial facilities are adequate with so much money involved.

Appointments for Life?

The Canadian Bar Association has recommended that Tax Appeal Board appointments be for life rather than the present 10-year basis. It will be difficult to fill out and maintain the calibre of the Board unless the appointment is a permanent one, it's suggested.

Here again, however, life appointments would make Board members more like judges, and the Board itself would probably tend to become more like a court. To those who want to see the informal aspects of the Board retained, this could be a retrograde step.

On the make-up of the Board, some feel that its membership should include people other than lawyers. They claim some decisions they regarded as unpalatable would not have been handed down if there had been good accounting advice readily available.

Against this, it's contended by a good many, including accountants, that while the decisions may clash with good accounting practice in some cases, usually it's the fault of the Act rather than any deficiency on the part of board members. Accountant members of the Board couldn't change the law any more than lawyer members, and it could be a frustrating experience for an accountant to participate in a decision which had to be based on existing law and yet went against all his principles as an accountant.

Until Parliament's concept of income and the businessman's concept of income are reconciled — the differences are narrowing but Utopia seems to be some time off — the accountant might find his job very difficult.

Whatever the feeling is for or against non-legal members on the Board, it seems generally agreed that in any hearings, a legal man, trained in the intricacies of court procedure, should preside.

One suggestion for speeding up the handling of cases has been the establishment of regional boards to hear cases. There is some precedent for this in the United Kingdom method of handling tax appeals. However, our tax traditions and experience here are different, and a lack of uniformity in decisions would almost certainly develop. This would tend to destroy the advantages now arising out of the increasing number of decisions by the central board on which tax advisers can advise their clients.

Even with the present Board, there have been decisions by members which clashed with those of others. This has led to a good deal of confusion in the past, and has brought criticism on the Board's method of operation.

Refer to Full Board

However, this defect looks as though it will soon be remedied. The Board members have decided that in future, if they feel they must bring down a judgment which goes against an earlier finding of the Board, they will refer the case to the full Board for decision.

If there is a majority judgment in favor with their view, it will be handed down that way. If the majority favors an opposing judgment, the member (or members) who heard the case will be free to issue a minority finding, thus registering his view but at the same time building up a continuity and a consistency in judgments that has sometimes been lacking in the past.

With the Board now composed of four men, instead of three, placing a case before the full Board may lead in some instances to a deadlock. If Board membership is still further increased, however, this difficulty should disappear.

This change in the method of handling cases will be welcomed by all concerned with tax matters. Inconsistent decisions have been a hot issue in the past.

It also indicates that the Board setup is not necessarily static, nor is it necessary in many instances to resort to legislation to bring about desired changes.

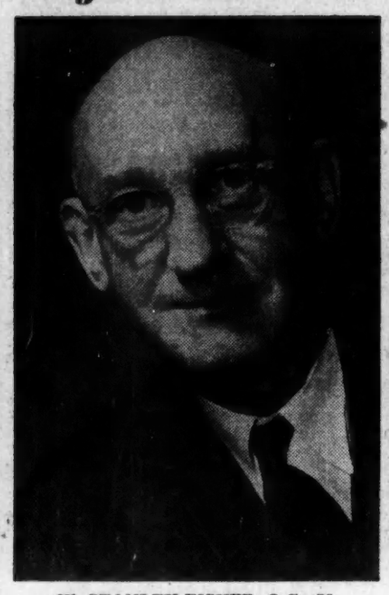
As time goes on, the whole appeal system will undoubtedly develop a clearer pattern. Dean Curtis of U.B.C. predicted at Winnipeg that the number of appeals beyond Board level will diminish.

As the volume of specifically Canadian tax material builds up, and experience deepens, he pointed out, the lines of tax liability become more clearly defined and the occasion for appeal less, once the facts are established. Trying to apply precedents from other countries to our legislation is still one of the problems confusing today's tax issues.

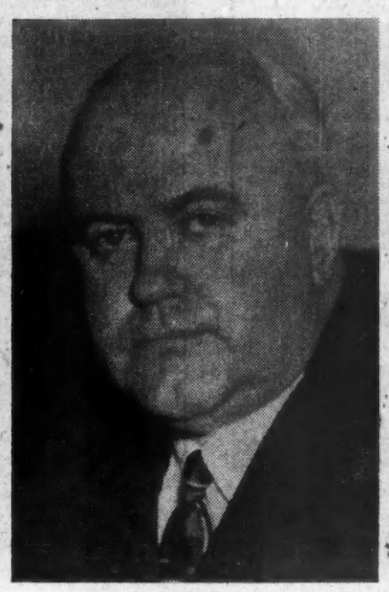
Concluded Dean Curtis: "Our courts and the Board are shaping Canadian tax doctrine and widening the area of clarity. The resources of the judicial process should be exhausted before turning to the more cumbersome legislative solutions."

They Reconcile the Law and the Facts

FABIO MONET, Q.C., 54,
chairman of the Appeal Board since 1951 and a member since its formation. Prior to joining Board, he had been in private practice in Montreal, had participated in many important criminal cases.



W. STANLEY FISHER, Q.C., 58,
member of the Appeal Board since its formation, he had been director since 1946 of the legal branch of income tax department with the rank of assistant deputy minister. Joined department in 1927.



CECIL L. SNYDER, Q.C., 52,
assistant chairman, just appointed to Board, will sit with Chairman Fabio Monet at first hearing next week. Deputy attorney-general of Ontario 1938-48, he had had wide experience as Crown Counsel.

REGINALD SYDNEY WALTER FORDHAM, Q.C., 56,
formerly in private practice and in Government legal work, and author of recent book on Income Tax Appeal Board practice; joined the board several years ago.

Here's Spring Schedule Of Tax Board Hearings

The Income Tax Appeal Board's present schedule involves hearings at the following places up to the end of May (hearings are in several instances held simultaneously by members sitting singly):

February: Montreal and Toronto.

March: Kingston, Belleville, St. Catharines, Windsor, London, Ont., and Montreal.

April: Winnipeg and Calgary.

May: Edmonton, Vancouver, Victoria, Toronto and Montreal.

Which Way for Common Stock Prices?

Price Rise Signaled Now According to 'Bank Index Theory'

Which way will common stock prices go—now that the industrial averages on most stock exchanges have surpassed last year's peaks?

Some market observers are looking for a repetition of the decline that took place late last winter, but at least one analyst —H. E. Boulter of J. R. Timmins & Co.—is predicting an advance of about 10% in the Toronto industrial index from its present level of about 324.

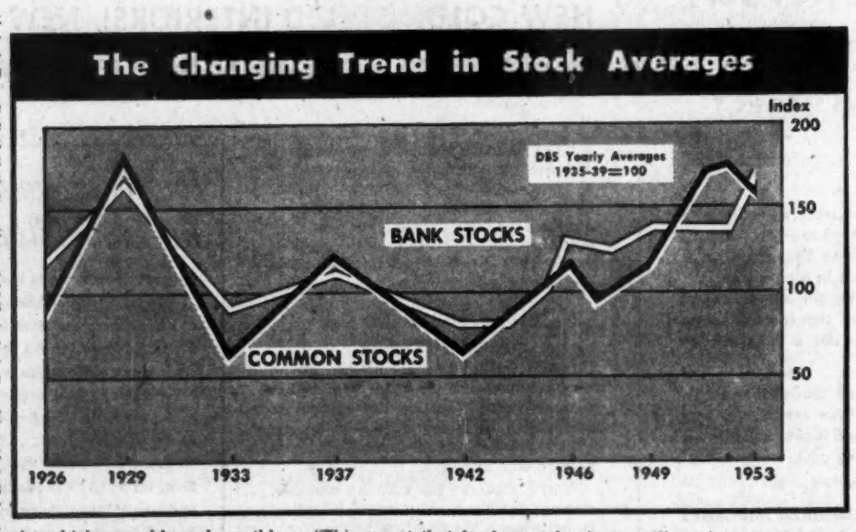
Reason for Boulter's optimism is that common stocks are selling well below bank stock prices as measured by the Dominion Bureau of Statistics, and this relationship always precedes an upswing in common stock prices, he maintained.

Here's Boulter's explanation of the pattern:

"As long as the DBS bank index continues to rise above the common stock index, common stocks will improve in price until they have topped the bank's figure. The top of the price rise of the commons is signaled in the month this occurs. Historically, this took place in April, 1929; April, 1937; March, 1946; and May, 1951. In each case, major price declines followed within a few months."

27-Year Pattern

The accompanying chart of the DBS indices over the past 27 years shows that common stocks can be purchased when the bank index is in an uptrend, and sold when the common index starts to show higher weekly and monthly figures.



"So far," says Boulter, "this has acted with almost mechanical precision. Of course, no market rule is infallible."

A year ago, with the DBS common stocks average at 172.3 and the bank stocks average at 162, the pattern indicated profit-taking. Commons started to decline and lost 20 points in the next six months, while banks made a net gain of about six points.

"This meant that fundamentally there was nothing wrong with the market," says Boulter. The buy signal came in November when the bank index rose sharply to 175.4 (it is now about 189) and commons stood at 154 (now about 162).

Bank stocks have almost reached their top, thinks the Timmins & Co. analyst, unless interest rates decline and make bank stocks more attractive for income.

What To Expect

"If this is correct, then common shares will catch up to the bank index over the next two or three months. When this happens—about 350-360 on the Toronto Stock Exchange index of industrials—it may again call for a broad selling plan."

Bank stocks on the T.S.E. currently yield an average of approximately 3.80%, compared with 3.93% a year ago. The average for dividend-paying commons is 5.31%, up slightly from the average yield of 5.26% at this time last year.

What are the Chances?

That's a question we hear all the time from people who want to buy some oil or mining stock that only costs a few pennies a share.

How do we answer that question?

Well, more often than not, we simply say that we just don't know. That there just aren't enough facts available to form a sound opinion. That as far as we're concerned they seem to be extremely speculative situations.

Of course, if you realize the heavy risks in speculation—and can afford them—we'll be happy to buy any listed stock that you ask us to on a cash basis.

But if you've never invested before, we'd much rather see you start with some of the sounder investment stocks... stick to companies with long established records of earnings and dividends... be satisfied with a 4% or 5% return on your money.

If an approach like that to investing makes sense to you—we'll do all we can to help.

Simply come in or write, and we'll prepare the best program we can for your particular circumstances.

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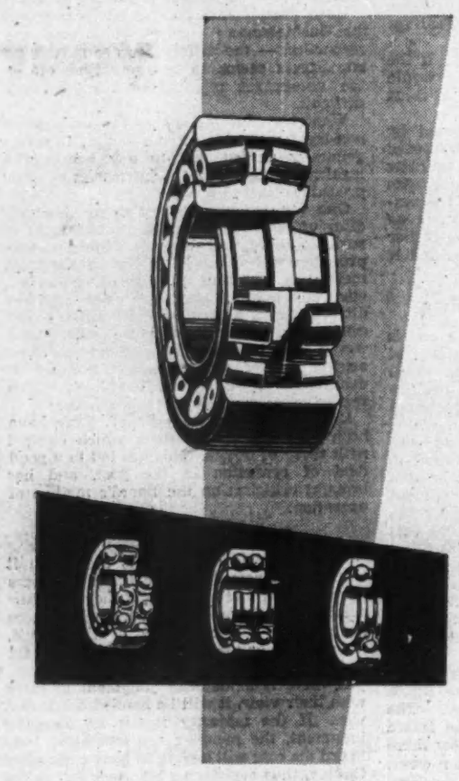

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Daring B. C. Hydro Project

Getting Mainland Power Under Sea To Vancouver Island

From Our Own Correspondent

VICTORIA—B. C. Electric Co. this week awarded a contract on the most daring project of a post-war development that has so far pumped $195 millions into new facilities and foresees another $155 millions needed to keep pace with demand over the next five years.

Its latest plan will bring the vast power resources of the mainland to power-short Vancouver Island by submarine cable. Although the total cost is only $5 millions—small money compared to some of its postwar projects—the new venture is the trickiest ever undertaken.

It's the brainchild of Vice-president and Chief Engineer Thomas Ingledew, who began mulling it over two years ago, and will involve bridging the 46-mile gap between the Mainland and the Island, 19 miles of it by submarine cable, 17 miles in a single unbroken underwater link.

The cable will carry 120,000 kva at 132,000 volts—by a wide margin a bigger carrying capacity than any submarine cable in the world.

The Cable Contract

Contract for the cable itself, which includes four unbroken lengths of 17 miles each, went to British Insulated Callenders Cables Ltd., for $3 millions. This, said Mr. Ingledew, was $1 million cheaper than any other Canadian or British bid.

Several months will be required to tool up the British factory at Manchester, he says. No company in the world now has facilities for turning out unbroken lengths of this type of cable in the mileage required.

It is a hollow, stranded copper conductor surrounded by nitrogen gas at 300 lb. per square inch pressure, sheathed in turn by impregnated paper, a lead jacket, three layers of tinned bronze, a rubber jacket, a stranded steel armor covered by jute wrapping on the outside—roughly five to six inches in diameter over-all.

Three lengths will carry power, a fourth will be laid as a spare. The SS. Seafisher is having her holds specially adapted to carry the cable to B. C.—a cargo of 4,000 tons.

Placing of the contract in Britain pleases H. R. MacMillan of MacMillan-Bloedel, who is a member of the Dollar Export Board.

"I'm delighted," he said. "British purchases of lumber, salmon and other goods from Canada are limited by British capacity to earn dollars.

"It will be encouraging in the United Kingdom and here to see B. C. Electric taking a lead in buying British goods. By doing so they are assisting to maintain employment in the area from which they draw their revenue."

Big Capital Impact

Excepting Alcan, B. C. Electric has had a bigger impact on B. C. capital expansion than any other industry since the war.

Of the $195 millions it has poured into new facilities—gas, transit and electric service—by far the biggest chunk, $160 millions has gone into new power sources and transmission systems.

Its development program, matching B. C.'s growth, placed it second only to the Provincial Government as a construction spender until edged into its present third place by Alcan's colossal Kitimat project.

Under Rhodes Scholar A. E. (Dal) Grauer the company, since the war, has:

—Raised its capacity from 250,000 hp at war's end to 607,187 hp today.

—Begun development of the giant Bridge River project potential 620,000 hp; three units completed, each 62,000 hp; a fourth under construction for completion this summer; one of the main storage structures, La Joie Dam now being raised to 275 ft. high and 3,500 ft. long to hold water for five units?

—Rebuilt its pioneer Buntzen plant on Burrard Inlet, replacing seven small outmoded units totaling 26,000 hp with a modern 70,000 hp unit.

—Built a third unit (47,000 hp) at its Ruskin Generating Station on the Stave River, a tributary of the Fraser.

—Built Wahleach Generating Station providing 80,000 hp on the banks of the Fraser below Hope with a head of 2,000 ft., one of the highest on the continent.

—Turned from a power importer over the Pacific Northwest Power Pool into an exporter bringing in $1 million annually from U. S.

—Has now under construction a total of 120,500 hp—the fourth Bridge River unit plus a new "Seton" development of 58,500 hp on the banks of the Fraser near Lillooet, which takes a second crack at water disgorged from Bridge River plant 18 miles to the west.

—Has under study on the Cheakamus River above Squamish a new power project estimated at 100,000 hp.

—Now serves one third of B.C.'s population with gas, transit, electricity or all three.

—Estimates that 60% of its capital expenditures of $25 millions to $30 millions annually goes to buy B. C. goods or fatten B. C.'s construction payroll (aside from its "ordinary" payroll now running at $18 millions annually).

—Seen its power load grow since the war by 10-12% annually, slip during the last year or so to 9%-10% increase annually and expects this latter rate of growth will continue for several years to come.

After the war, B. C. Electric spent thousands in advertising the slogan "Business is moving to B. C."

With its new submarine line to Vancouver Island and its estimated expansion program of $150 millions in the next five years, it's obvious that B. C. Electric's hardheaded planners are now banking on the fact that "Business is STILL moving to B. C."

COMPANY REPORTS

To assist readers in appraising and comparing company financial statements, The Financial Post has a uniform method of presenting corporation accounts. Variations from the companies' published reports are footnoted.

Finance

MUTUAL ACCUMULATING FUND net income of $99,060 for 1953 was 94.2% higher than 1952 net of $51,011.

Portfolio holdings were altered in 1953 by reduction or elimination of shares of eight companies, and the addition of shares of five new companies.

"In conjunction with the program for broadening public participation," reports President P. A. Wootten, "registration under the various provincial Securities Acts is being maintained." MAF shares are now offered publicly in all provinces from British Columbia to Quebec.

Here is diversification of MAF stockholdings by industry at the end of 1953 and 1952.

Group:	% of Total Net Assets 1953	1952
Amusements	2.23	2.20
Automotive & allied	3.40	5.43
Beverage	15.86	8.16
Chemical & drug	2.67	5.33
Construction & allied	5.20	6.12
Containers	1.60	1.99
Financial	4.82	6.70
Food	7.61	5.50
Forest products	12.92	5.45
Metals & mining	7.63	9.28
Petroleum	2.32	1.87
Printing & publishing	5.19	4.05
Public utility	8.01	6.31
Railroad & equipment	6.15	6.30
Retail trade	2.07	6.57
Steel & allied	5.29	4.63
Textile	2.31	1.76
Tobacco	2.54	1.51
Cash & receivables	1.18	5.66
	100.00	100.00

INCOME ACCOUNT Years Ended Dec. 31:	1953	1952
Gross income	$105,743	$54,722
Less: Oper. expn.	6,683	3,712
Net income	99,060	51,011
Inc. per share	120.6584c	71.946c

†Adjusted for 4-for-1 stock split, June 30, 1953.

BALANCE SHEET As at Dec. 31:	1953	1952
Cash	$12,569	$11,209
Bal. due on purch. of shs.	.....	59,005
Div. earned, not rec.	15,320	5,381
Invests., at cost*	2,310,503	1,204,348
Total assets	2,338,392	1,280,942
Shares issued	2,147,071	1,191,713
Capital surplus	6,610	3,196
Divds., accts. accumulated	184,711	85,631
Market value	2,333,320	1,269,398
Total net assets	2,361,490	1,345,397
Net assets value per sh.	2.66	13.96

NORTHERN TRUSTS CO. net profit of $55,105 for 1953 was 6.7% lower than 1952 net of $59,071.

	1953	1952
Liabs. to public, etc.*	$149,566	$204,836
Shareholders' equity	1,767,844	1,714,383
*Secured by:		
Mtges. & sls. agree.	231,000	282,071
Office premises	23,003	23,950
Realty for sale	16,265	8,000
Liquid assets	1,646,912	1,605,198
Total assets	1,917,210	1,919,219
‡Includes bonds and stocks		
Estates account‡	31,314,211	30,937,848
Net profit	55,105	59,071
Earned per share	$1.16	$1.16
Paid	0.50	0.50

Announcing . . .

PARIS INTERNATIONAL TRADE FAIR

May 22 to June 7, 1954

For free Admission Cards apply to the offices of the French Commercial Counsellor, 464 Wilbrod St., Ottawa, and 610 St. James St. W., Montreal, or of the Commercial Attache, 185 Bay St., Toronto.

The Wolf and the Crane

A WOLF once got a bone stuck in his throat. So he went to a Crane and begged her to put her long bill down his throat and pull it out. "I'll make it worth your while," he added. The Crane did as she was asked, and got the bone out quite easily. The Wolf thanked her warmly, and was just turning away, when she cried, "What about that fee of mine?" "Well, what about it?" snapped the Wolf, baring his teeth as he spoke; "you can go about boasting that you once put your head into a Wolf's mouth and didn't get it bitten off. What more do you want?"

MORAL: Many a man who takes long chances has nothing to show for it afterwards. Isn't it wiser to put part of your salary, every pay day, into a savings account with The Canadian Bank of Commerce? Then you will really be able to laugh at the wolf of adversity.

Illustration by Arthur Rackham, from the Heinemann Edition of Aesop's Fables.

The Canadian Bank of Commerce

N-63

Studebaker's far-advanced new design cuts your gasoline bills!

White sidewall tires and chrome wheel discs optional in all models at extra cost.

Get a '54 Studebaker

Own the thrifty Canadian car that is setting the style for the world!

ATTENTION! Buyers of Used Cars!

Sound, solid craftsmanship and dependable gasoline economy are even more important in a used car than in a new one.

That's why the experienced buyer of used cars always keeps an eye out for a late-model Studebaker.

Every used Studebaker that's a 1947 or later model has outstanding good looks plus in-built low operating cost.

* * *

GET MORE UNUSED MILEAGE! GET A USED STUDEBAKER!

NEW COLOR-STYLED INTERIORS! NEW SEDANS! NEW SPORTS MODELS! NEW STATION WAGONS!

HERE is more than the world's most distinctive automobile styling—your assurance of high resale value. Here is far-advanced car engineering—designed to save gasoline for you constantly. Every sound, solid inch of every 1954 Studebaker is clean-lined and free from power-wasting excess bulk.

Deep-bedded comfort and sure-footed safety

Come in and take a close-up look at the way this sensational 1954 Studebaker is constructed. Notice the superb fit and finish of every detail—the outahead smartness of the color-styled new Studebaker interiors.

You'll want to try out the amazing riding comfort—the road-hugging smoothness—the thrilling performance of the new Studebaker body type you like best—and we want you to do so. Come in and go out for a trial drive.

Look what you get in a new 1954 Studebaker

Longest wheelbases in the low price field . . . Large, powerful brakes . . . New 7.5 to 1 high compression in both Champion 6 and Commander V-8 engines . . . Gas-saving automatic choke in all models . . . Big-visibility one-piece windshield and rear window . . . New low-swung stability on turns and curves . . . New and finer Studebaker "Miracle Ride" . . . In addition, all 1954 Studebakers offer you at extra cost Studebaker's marvelous new Power Steering—and either Automatic Drive or Overdrive.

See the new 1954 Studebakers at the National Motor Shows

Among the many smart baggage styles at your McBrine dealers is the 'Comet' set fashioned in amazingly tough, scuff resistant Duralite—See it before you go.

McBRINE Comet MATCHED BAGGAGE
ENDORSED BY B·O·A·C FOR AIR TRAVEL

"BARBY" creates 'New Look' for '54!

"These ordinary window envelopes save us money," said the Vice-Pres., "but they don't make a good impression. Isn't there something better we can use?" "Let me call in Barby," said the office manager.

"Here's the new look your envelopes need!" said Barby. "The Barber-Ellis *CELLOVISION Window Envelope will give your mail a smart, modern appearance. Clear view of address eliminates mailing errors, too!"

"Well, Boss," said his secretary, "the new look of our *Cellovision Window envelopes has worked wonders!" "You're right," said the office manager. "I'm proud of our envelopes now—thanks to Barby!"

Yes, Barby knows that the appearance of window envelopes is important. That's why he recommends the smart *CELLOVISION Window Envelope with its smooth, wrinkle-free finish, and crystal-clear view, making mailing errors impossible. Whatever your envelope needs, Barber-Ellis makes a size and style for every purpose—and they're *made right to seal tight!* Barby also reminds you that Barber-Ellis supplies a complete line of fine printing papers . . . as well as being Canada's largest manufacturer of stationery, envelopes, and transparent packaging.

*Trade Mark Reg.

Call or write your nearest Barber-Ellis sales office:
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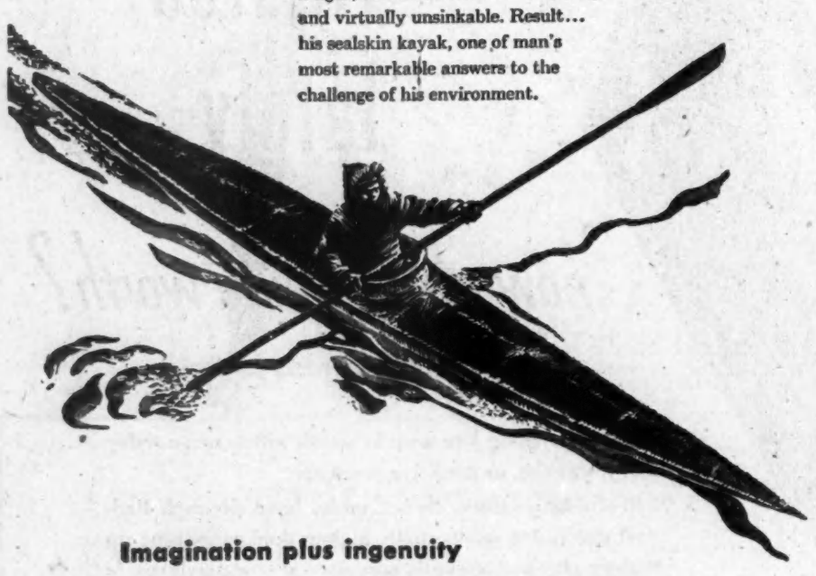
ENVELOPES BY BARBER-ELLIS
SALES AND SERVICE COAST TO COAST

The Eskimo hunter had to devise a light, fast craft that would be tough and virtually unsinkable. Result... his sealskin kayak, one of man's most remarkable answers to the challenge of his environment.



Imagination plus ingenuity

were the twin keys to the Eskimo's problem. Here at the Royal Bank we believe those same two qualities to be important in the banking business: imagination to plan for the future, ingenuity to meet new conditions as they arise. The result, a flexible banking service, constantly expanded and adjusted to meet the changing needs of our customers.

THE ROYAL BANK OF CANADA

Total assets exceed $2,800,000,000

OIL PRODUCTION

Oil Well Drilling Rising As Active Rigs Gain 5%

From Our Own Correspondent

CALGARY—Pace of oil well drilling in Western Canada appears to be on the rise with a 5% increase in the number of active drill rigs over a three-week period.

Drilling activity is continuing to be stimulated by recent discoveries in Alberta such as Pembina-Buck Creek, Sturgeon Lake in Alberta, Smiley and Midale in Saskatchewan and Virden region in Manitoba.

For the future, the petroleum industry is hoping that natural gas export will provide a stimulus to added drilling.

Altogether 52 drilling contractors or oil companies with their own rotary rigs are currently operating 189 rigs in Western Canada. This represents a decrease of 21% in the number of contractors but of only 3% in the number of active rotary rigs.

More than 50% of rigs are either drilling at or moving to exploratory and wildcat well sites as compared with 41% in that class a year ago.

Conditions are reported to be favorable for a steady increase in drilling activity this year, although it may not become of record proportions.

* * *

Here is a list of Alberta fields and their daily average delivery to pipe line in the latest week:

	Barrels Per Day	No. Wells
Acheson-Stony Plain	6,284	105
Armena-Camrose	9,636	284
Bashaw	....	5
Battle	217	8
Big Valley	1,546	40
Bonnie Glen	27,461	99
Campbell Lake	704	15
Duhamel	1,276	28
Erskine	656	19
Excelsior	4,152	36
Fenn	6,383	80
Glen Park	1,771	16
Golden Spike	5,517	15
Joffre	532	13
Joseph Lake	4,111	124
Leduc-Woodbend	58,069	1,256
Malmo	1,959	53
New Norway	1,043	17
North Big Valley	7,122	64
Redwater	68,799	926
South Camrose	62	8
Stettler	3,656	89
West Drumheller	2,620	49
Westerose	5,488	15
Wizard Lake	14,330	46
Daily Average Production:		
Cessford	441	26
Chauvin	429	27
Clive	629	19
Drumheller	960	14
Lloydminster	3,500	354
Turner Valley	6,700	325
Other fields and areas	5,574*	386
TOTAL	251,748	4,565

*Based on November, 1953, data.

* * *

Canadian Oil & Gas Reserves Ltd. and its wholly owned U. S. subsidiaries plan to drill a minimum of 10 oil and gas wells in the U. S. and Canada during 1954, John Maberry, executive vice-president and general manager, announces.

At least four of the wells will be drilled in Oklahoma and six in Eastern and Southeastern Alberta.

Drilling in Alberta during 1954 by Canadian Oil & Gas Reserves will begin with a step-out to the company's first success in the Atlee area, about 100 miles east of Calgary. Two additional wells are to be drilled in the west Drumheller field.

Urges Discussion Of Trust Fees

"There is a complete misconception in the minds of the public as to trust company charges," Chairman Ibbotson Leonard told the annual meeting of Canada Trust Co. "Much of this has been due to failure of companies themselves to tell the facts."

Results of 1953's effort is a net profit of something less than one-twentieth of 1% of the assets for which responsibility was assumed, Col. Leonard noted.

"We are facing up to this problem today with an invitation to customers and prospective customers alike to discuss the question of fees with us and to give us an opportunity of explaining methods of charge."

MUTUAL LIFE OF CANADA
INSURANCE
ESTATE PLANNING
Rodney Hull
EM 4-8371

$50 Million Alcan Issue Now Offered

MONTREAL (Staff)—Aluminum Co. of Canada's big $50 million issue of 4½% sinking fund debentures was offered publicly this week by a large group headed by A. E. Ames & Co. The 19-year debentures, which will mature March 1, 1973, were priced at $99.50 and accrued interest.

Proceeds are not earmarked for any specific purpose, but Alcan states that, added to funds already on hand plus retained earnings and capital cost allowances, they will permit repayment of all bank loans, bring the initial 83,000-metric-ton stage of Kitimat into operation, meet all other requirements of the current expansion program and provide for other corporate purposes.

The company had said previously that any additional funds needed to complete the program might be obtained by bank borrowing or other interim financing. But it has now decided on longterm financing, to the extent of the new issue.

By the end of last month, Alcan had spent $385 millions on its current $410 million expansion program. Included in this was about $235 millions in British Columbia, where initial production from Kitimat is expected this summer.

At Kitimat, the buildings are now almost completed and the pots and other equipment are being installed and readied for production. Towers for the transmission line have all been erected and one complete circuit had been installed plus most of the second or spare circuit.

An initial work force of about 1,000 will be employed at the new town by July-August and commercial production is expected to total about 16,300 metric tons this year.

The landsite and a substantial portion of the ancillary facilities for two more potlines with a capacity totaling 83,000 metric tons have been prepared at Kitimat and are available when needed.

Over-all demand for Alcan's ingot remains strong, the prospectus states, and smelters are expected to operate at peak capacity during 1954. Forward sales contracts, plus the U. K. Government's commitments, cover 64% of its estimated capacity output for 1954 and 1955, and 30% for 1956-58.

Alcan's consolidated net profit for the 10 months ended Oct. 31, 1953, totaled $17,575,000 (compared with $19,119,000 in the full year 1952). Capital cost allowances topped normal allowances on facilities in operation by $23,370,798 ($20,993,799) thus reducing net profit by $13,224,174 ($11,159,454).

Ingot production for all of 1953 amounted to $495,600 metric tons, or 23.3% of the world's total, excluding Russia and its satellites.

Alcan now has three debenture issues outstanding. Others include $90 millions 3⅞% due 1970 and $47.8 millions 3½% due 1971. Sinking fund provision on the new issue calls for annual payments sufficient to retire $31,250,000 principal amount (62.5%) before maturity.

Coronet Creditors Support New Plan

Despite bankruptcy proceedings instituted against the firm in Toronto, creditors of Coronet Television Co. have voted to support a plan designed to keep the company's manufacturing operations going.

An interim receiver for the Windsor TV firm was appointed last week on a petition by Hinde & Dauch Paper Co. of Canada.

President William Hurwitz told creditors the company had total assets of $1,468,303 and liabilities of $1,052,000. If the company is not allowed to continue, he held, the assets would realize possibly $200,000.

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MOST FREQUENT SERVICE!
LOWEST FARES!*

$386.70 RETURN
MONTREAL-GLASGOW
MONTREAL TO LONDON $417.30

SAVE ON OFF-SEASON FARES UNTIL MAR. 31st

Fly TCA and enjoy the roomy, cushioned comfort... the dependability of a famed "North Star" Skyliner... the thoughtful personal attention that distinguishes TCA service... and the big savings of Off Season Tourist Fares—*your best air buy to Europe.*

Weekly flight direct Toronto to Glasgow and London.

Regular flights from Montreal to London, Glasgow, Shannon, Paris, Dusseldorf, convenient connections to *all* Europe.

See your Travel Agent, Railway Ticket Office or TCA Offices

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LUXURIOUS NEW SUPER Constellation SERVICE
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CAE's new electronics centre located on Cote de Liesse Road, Montreal. "Canada's Most Modern Electronics Plant"

Industrial applications for electronics are being discovered almost daily . . . bringing higher quality, more efficient production.

The combined experience of **cae's** 400 engineers and technicians—more than 4,000 man-years—places **cae** at the genius level on the electronics I.Q. scale.

In the hands of this versatile team, **cae's** great *new* electronics centre, fitted with the most modern instruments and equipment, provides Canadian Industry with the most advanced electronics know-how.

Make it *your* business to take advantage of **cae's** engineering research, design and manufacturing facilities!

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OTTAWA QUEBEC SHERBROOKE TORONTO

B.C. Will Take Over More Private Timber Holdings

From Our Own Correspondent

VANCOUVER — A fundamental departure in the relationship of the British Columbia Government to the owners of standing timber is under way. It is coming about, not through any formal announcement of new policy, but as the result of a new trend in government thinking. The effective change will be vital and widespread. It is expected to improve the position of several of the large corporations in the greatest industry of this province.

The public holding of timber by British Columbia is by far the greatest in Canada. In Ontario, large domains have been sold or rented out by the Government in years gone by and the land in most cases goes with the standing timber.

In B.C., however, the land, once it has been cut over by loggers, reverts in most cases to the Crown. On thousands of acres of these reverted lands a second crop is now almost ready to cut; so the Government's holdings have been swollen greatly in value.

Then years ago, when Chief Justice Sloan investigated the timber business, there was quite a scare on concerning a "disappearing industry." It was then estimated that standing timber might total only 255 billion measured board feet.

Today, after careful examination by officials equipped with airplanes and other modern tools for survey, it is estimated there are more than 800 billions of feet of good timber in the province and no worry exists about cutting it too fast.

The Government of British Columbia own at least 90 per cent of it. Some specially good standing timber on Vancouver Island has lately been sold at from $8 to $10 per thousand feet. At even half this price, the total government-owned values represented would be $3 billions.

Owning nine tenths of the standing timber, the Government is moving to take more, by the operation of the "forest management system." This is not a Social Credit innovation. The forest management plan was inaugurated by a Liberal minister in the late Coalition Government and continued by the "Boss" Johnson Liberals. The Social Crediters are adopting the plan, and extending and improving on it.

When "forest management" was first proposed it was slow to catch the favorable attention of the big companies, but it has worked pretty well and practically all the big people in the timber business are now in favor. This is how it worked:

A typical firm which had long operated a conventional sawmill could see much wasted product in small bits of timber unsuitable for house-building, so they planned to erect a pulp mill or plywood plant. The Government wished to encourage this, because it meant more saleable material from a given acreage. The corporation would estimate it had 75% enough standing timber to provide for the enlarged output over a period of years. So under "forest management" the Government provided the remaining 25% —thus a new mill or factory was brought into being.

But government forestry officials took over supervision of the entire woods operation, and the Government, in return for its contribution of timber, stipulated the annual size of the cut to supply the factories.

First FM license issued went to Columbia Cellulose at Prince Rupert, and on this basis that company operated its pulp mill ever since.

Twenty other licenses, some large, some small, have been issued and there are more than 100 others pending, some from the largest outfits in the country.

Under early licenses, the corporations maintained an asset ownership of its original timber. Now, the principle has been extended, so that over the next few years some of the largest private ownerships of standing timber in B.C. will disappear altogether, to be taken over by the Government.

Two typical illustrations will show what is going on. A large corporation wishes to erect a pulp mill, but actually owns only one seventh of the timber required to operate the proposed mill in perpetuity. It turns over what it owns to the Government and the latter, on a rental basis, assumes the responsibility of keeping the company supplied with sufficient standing timber in a suitable area.

Another company has five sevenths of the timber it needs to operate a third and fourth big plant in a series. It turns over its own holdings and the Government adds the remaining two sevenths to the total required to run new as well as present plants.

Practically, the corporations in both cases would go out of personal timber ownership within a limited period.

The CPR is the largest individual owner of crown-granted tracts in the province. Nearly 50 years ago the railway company paid a few million dollars for the Victoria-Nanaimo railway, which owned a strip of the best timber on Vancouver Island. The CPR has cashed in scores of millions from this investment and still has left 6 or 7 billion feet worth at least $30 or $40 millions.

Would Form Que. Economic Council

MONTREAL (Staff)—Creation of a Quebec Economic Council to guide in the province's exploitation of natural resources has been urged by the City of Levis in a submission to the Royal Commission on Constitutional Problems.

The brief urges creation of an advisory body composed of "economists, administrators and engineers."

To obtain uniformity in municipal evaluations, the city also urges establishment of a school for technical evaluators. Changes in the payment of gasoline tax, and other provincial levies were also outlined.

In another brief, the Association of Career Professors of Laval University urged the creation of a provincial university fund to distribute Federal Government grants and the allotted provincial tax revenues. The fund would be administered by a council composed of Quebec university representatives, with number of votes depending on enrollment. The group would take an annual survey of the needs and resources of individual institutions, allocating funds wherever necessary.

"Through this formula, the distribution of grants to universities inside the province would not be determined by the Federal Parliament itself, but by the Provincial Legislative Assembly," the brief stated.

Hike In Quebec Cartage Rates

MONTREAL (Staff) — The Quebec Transportation Board has authorized a general 10% increase for cartage rates in the province.

The new scale, said to be a result of higher labor and material costs, calls for an increase in the hourly rate for general cartage from $2.65 to $2.80 for a two-ton truck, with rates increasing according to carrying capacity up to $10 an hour for a 30-ton vehicle.

In the household moving field, new rates are $5 an hour with two men, $8.50 with four men and $2 per hour for each additional helper. Pickup and delivery operators will increase their parcel rates from 25c to 30c, with a minimum charge of 75c. New and higher overtime rates are also applicable in all categories.

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is the time to review your insurance

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ANNOUNCEMENT

CROWN LIFE APPOINTMENTS

N. D. CAMPBELL, F.S.A. J. E. MOORE, F.S.A. G. N. WATSON, F.S.A.

The Crown Life Insurance Company announces the appointment of N. D. Campbell, F.S.A. as Actuary, J. E. Moore, F.S.A., as Comptroller and G. N. Watson, F.S.A. as Group Manager and Actuary.

MILE LONG CONVEYOR BELT TO HAUL N.S. SUBMARINE COAL

A 6,225 ft. inclined tunnel being driven from the surface out under the sea at a N. S. submarine mine, when completed in 1954, will handle 10,000 tons of coal daily, plus men and materials.

N. S. DEPT. of Mines, Halifax, N.S.

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"Extraordinary! Everything flat as a pancake except the Bathurst box!"

WE don't know how a Bathurst container would withstand an atom bomb . . . and frankly we don't care to. But we do know how our shipping cases will stand up to almost every other kind of punishment . . . the worst of which are of our own contriving . . . and they come through with colours flying. Right in our own laboratories every type of container we make is subjected to tests far more severe than any abuse likely to be encountered in actual handling. That's why we are so sure that your product will be fully safeguarded for shipment anywhere when it's packed in a Bathurst container. Whatever your particular packaging problem may be write to us, without obligation, for any assistance you may require.

KRAFT CONTAINERS **BATHURST** SHIPPING CONTAINERS

34-3

KRAFT CONTAINERS LIMITED, HAMILTON, ONT. AND SHIPPING CONTAINERS LIMITED, MONTREAL, QUE., SUBSIDIARIES OF BATHURST POWER & PAPER COMPANY LIMITED, BATHURST, N.B.

COMPANY REPORTS

To assist readers in appraising and comparing company financial statements, The Financial Post has a uniform method of presenting corporation accounts. Variations from the companies' published reports are footnoted.

Construction

BUILDING PRODUCTS LTD. net profit of $1,710,778 for 1953 was 10.7% higher than 1952 net of $1,564,101.

Dollar value of sales was slightly ahead of the previous year, reports President L. S. Odell. Operating costs were relatively stable; slight decrease in raw material costs was offset by increases in wage rates.

Capital expenditures totaled $1,173,852, with unexpended balance on capital projects amounting to $892,400 at year-end. Principal project is construction of a paper mill at Edmonton for manufacture of felts and sheathings. Raw stock is being accumulated, with start up scheduled for May 1.

Projects completed in 1953 included a warehouse addition at Edmonton and certain additions to machinery and equipment at Montreal and Pont Rouge, Que. Sale and other disposal of assets in 1953 amounted to $72,468.

"To minimize handling charges and to replace several small and obsolete buildings," says Mr. Odell, "a warehouse addition of approximately 35,000 sq. ft. floor space is being undertaken at Hamilton, Ont."

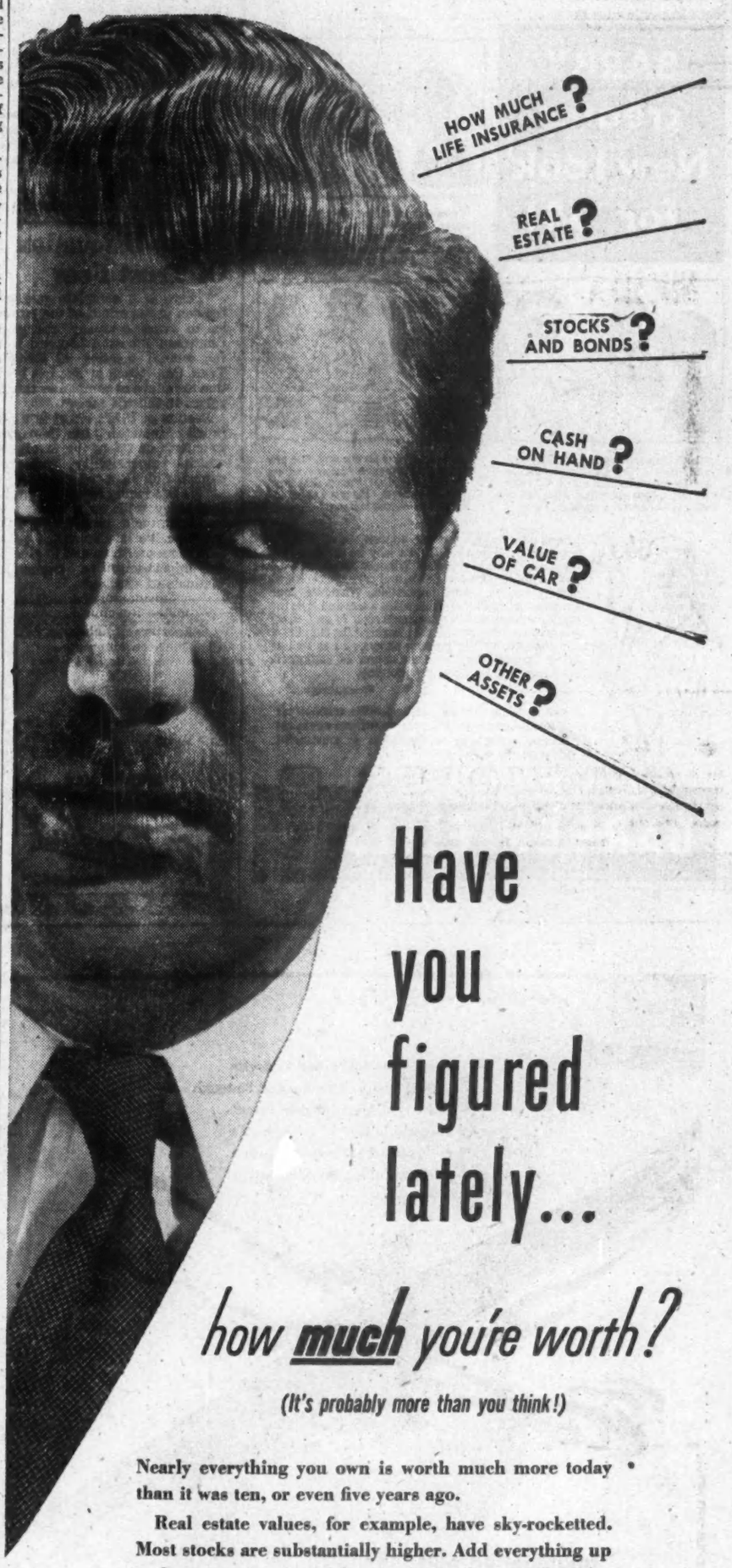
It appears that 1954 will be a good year for residential building materials but might not establish any new records, says the president.

INCOME ACCOUNT

Years Ended Dec. 31:	1953	1952
Net earnings	$3,793,253	$3,739,816
Less: Deprec. reg.	973,881	473,663
Debenture int.	8,307	11,745
Prov. for taxes	1,496,000	1,700,000
Add: Prof. on sale of La. & invests.	15,217	28,693
Net profit	1,710,778	1,564,101
Less: Com. divds.	870,091	870,091
Surplus for year	840,687	694,010
†Loss.		
Earnings per Share and Dividend Record:		
Common	$3.54	$3.24
Paid	1.80	1.80

CONDENSED BALANCE SHEET

As at Dec. 31:	1953	1952
Cash & Dom. bds.	$4,358,907	$4,644,406
Accts. rec.	1,358,279	1,264,327
Inventories	3,047,419	2,678,350
Total curr. assets	8,765,586	8,587,083
Prep. exp.†	74,446	130,823
Fixed assets*	3,302,329	2,738,303
Total assets	12,139,365	11,456,209
Accts., tax., etc., pay.	2,227,494	2,304,594
Ser. deb. due	125,000	125,000
Total curr. liab.	2,352,494	2,429,594
Funded debt	125,000	250,000
Gen. & replace. res.	785,074	740,505
Capital stock	1,483,110	1,483,110
Surplus	7,393,687	6,553,000
*After depr. of	4,858,260	4,117,732
†Incl. in curr. assets in co's report.		
Working capital	6,416,102	6,157,489
Contingent liability at Dec. 31, 1953, amounted to $285,994.		



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Harder Selling Forecast For Lumber Trade in 1954

MONTREAL (Staff) — A call for more modern merchandising methods, more efficient production, grading and standardizing in Canada's lumber industry went out at the annual convention of the Canadian Lumbermen's Association in Montreal this week.

Stress was also put on "an acute need" for more money to be spent in forest and forest product research.

Speakers stressed the inroads which competing building materials have been making into traditional lumber markets in recent years. President K. O. Roos warned that unprecedented war and postwar demand has obscured the fact that lumber has been getting a decreasing share of an expanding market. This, he said, has left the industry in a "somewhat vulnerable position."

At Trade Crossroads

J. H. Jenkins, chief of the Forest Products Laboratories of Canada, believed that the industry is at a "trade crossroads" and called for a "careful and honest reappraisal of the regression of wood in the popular markets." He claimed there has been too much complacency and a lack of foresight and tenacity and, conceding the right of others to compete for the markets for wood, emphasized that there is no reason why lumbermen too should not compete in other fields.

Turning to the immediate outlook, most lumbermen felt that business will be good in 1954. They looked for harder selling, more advertising and trade promotion but expected prices to hold firm. Inventories at retail and wholesale levels are up somewhat from a year ago, but were not considered high.

Last year, production totaled 6,950 million board feet, up 200 million from 1952. Exports were up a slight 42 million at 3,382 million, with a drop shown for the U. K. and increases for U. S. and other countries. The U. S. took over one third of total production.

Over-production of certain species was apparent and spruce, hemlock, jack pine and the lower grades of higher priced woods were affected.

Production To Drop

This year, a drop in lumber production and slightly better markets both in the U. K. and Canada, are expected. Competition has increased sharply, both in the trade and from substitute materials.

In Canada, the market should definitely improve in 1954, it was felt, due to the large homebuilding program under way. In U. K., freeing of softwood consumption has meant the opportunity to increase shipments. In U. S. present indications point to a softer market, but recent easing of house construction regulations has been encouraging.

Tighter bank credit controls over loans for financing current production of logs, should help alleviate surplus 1953 production, it was felt, especially in spruce.

Traders General Insurance Co. Offer Term-Payment Car Plan

Traders General Insurance Co. announces a Canadian Competitive Alternative plan of low-cost term-payment, direct billing automobile insurance "to meet the competition of U. S. direct writers of automobile insurance."

Traders General is a Canadian company associated with Canadian General and Toronto General insurance companies. Operation of the new plan is under their underwriting and claims management departments.

Rates offered are claimed to be approximately the same or not more than 5% over the rates of one of the best-known direct writers. A quarterly-payment plan is offered. Agents may offer clients either a term-payment premium-savings plan or the regular annual premium plan.

Company claims savings in introduction of special machine operations for direct premium billing and a simplified system for preparing policies and handling endorsements and elimination of practically all ordinary detail work.

First term (three months) premium is paid to the agent; after that the policyholder pays directly to the company. The agent continues to control the business, however, and receives his commission from the company, 15% of the first-term premium, 10% after that.

New Records Set By Union Gas Co.

For the second month in succession a new record in daily demand for gas has been established on the system of Union Gas Co. of Canada, completed January records show.

An all-time high in company's history was reached Jan. 22, when 69,985,000 cu. ft. of gas were sent out.

THE IMPERIAL GUARANTEE & ACCIDENT INSURANCE COMPANY OF CANADA

NOTICE is hereby given that The Imperial Guarantee & Accident Insurance Company of Canada has received from the Department of Insurance, Ottawa, Certificate of Registry authorizing it to transact in Canada the business of Forgery Insurance, in addition to the classes for which it is already registered.

DATED at Toronto, this 1st day of February, 1954.

W. G CHAPMAN, Secretary.

Higher Yield Govt. Securities Lifts Bank of Canada Profit

Net profit of $44 millions is shown by the Bank of Canada in its annual report for 1953, an increase of $15 millions.

After paying the usual dividend of $225,000 on the stock held by the Minister of Finance, the balance of $43.8 millions was transferred to the Receiver-General of Canada for credit to the Consolidated Revenue Fund.

Most important single factor in the higher revenues of the bank was the higher yield on short-term Government of Canada securities. Other factors included a somewhat higher average amount of security holdings and some reduction in expenses.

Note circulation during the year rose $37.9 millions to $1,599 millions, compared with an increase of $97 millions in 1952, $96.7 millions in 1951, $59.9 millions in 1950 and $18.3 millions in 1949.

Of the total notes outstanding on Dec. 31, $264 millions were held by chartered banks and $1,335 millions by other holders.

Important items from the statement with comparisons follow:

	1953	1952
	$000	
Net profit	44,093	29,017
Divd. to fin. dep.	225	225
Paid Fed Govt.	43,868	28,792
Total assets	2,437,194	2,381,404
Sterling, U.S. dollars, etc	55,487	77,597
Investments	2,308,178	2,240,036
Indus D. Bank	25,000	25,000
Other assets	48,529	38,771
Capital	5,000	5,000
Rest fund	10,050	10,050
Note circ.	1,599,125	1,561,193
Deposits	748,805	716,087
Govt of Can.	93,393	44,946
Chart. banks	623,285	626,630
Other	29,527	44,511
For. curr. liabs.*	63,841	52,934
Divds. declared	.....	113
Other liabs.	10,373	6,027

*Of which $57.2 millions was due to the Government of Canada Dec. 31, 1953; $78.5 millions Dec. 31, 1952.

COMPANY REPORTS

To assist readers in appraising and comparing company financial statements, The Financial Post has a uniform method of presenting corporation accounts. Variations from the companies' published reports are footnoted.

Financial

UNION ACCEPTANCE CORP. consolidated net profit of $258,341 for 1953 was 76.5% higher than unconsolidated 1952 net of $146,330.

Volume of business transacted showed a continued increase in 1953, report Chairman J. E. Proctor and President F. E. Burroughes, but not in the same proportion as in 1952 when consumer credit restrictions were removed.

Additional working capital was raised during the year by means of a $1 million issue of 5¼% sinking fund secured notes, series A, and $500,000 in 6% cumulative preferred stock, par $20. In the current year, an issue of $1 million 5½% sinking fund debentures, Series C, due March 1, 1974, has been offered.

Consolidated sales and loans volume for the year increased by 23% over 1952. Consolidated notes receivable at Dec. 31, 1953, totaling $12,881,597 were 41% greater than at previous year-end. Automotive receivables were increased 15% and diversified receivables 95%. Average outstanding balance per contract at year-end was $399 ($458 a year earlier). Number of customers' accounts increased 61% over 1952.

An adjustment was made in reserve for doubtful accounts, to conform with income tax requirements. This reserve stood at $187,624 at the end of 1953.

The wholly owned personal loans subsidiary, Union Finance Co., opened branches in Sudbury and Ottawa during the year.

It has been decided to defer common stock dividends until all factors of proposed company expansion have been carefully assessed, resultant additional working capital requirements determined and until trend of 1954 economic conditions becomes more apparent, say the chairman and president.

CONS. INCOME ACCOUNT

Years Ended Dec. 31st	1953	1952
Operating profit	$909,037	$548,334
Less: Int. & bk. chgs.	297,736	215,254
Funded debt int.	91,671	30,550
Deprec.	15,809	3,900
Income tax	245,700	152,300
Net profit	258,341	146,330
Less: Pref. divds.	47,460	23,010
Surplus for year	210,881	113,320

▲Not consolidated.

Earnings per Share and Dividend Record:

Preferred, 60c	$2.49	$2.66
Paid	0.60	0.60
Preferred, 6%	4.98	.....
Paid	†0.90	.....
Common	1.84	1.07

†Two quarterly payments.

CONDENSED CONS. BALANCE SHEET

As at Dec. 31:	1953	▲1952
Cash	$580,206	.....
Union Fin. adv.	.....	$50,000
Lien notes†	12,692,347	8,832,214
Sundry & notes rec.	6,806	.....
Total curr. assets	13,279,359	8,882,214
Invest. in subsid.	.....	51,400
Misc. assets	4,691	4,753
Furn. & equip.*	60,757	31,378
Sinking fund	25,141	.....
Org. & fin. exp.	185,000	96,230
Total assets	13,564,858	9,065,975
Due bank, sec.	8,303,242	5,958,931
Accts., etc., pay.	315,733	153,539
Taxes pay.	115,700	82,499
Total curr. liabs.	8,734,675	6,194,969
Funded debt	1,869,000	980,000
Def. income	1,066,503	783,302
Capital stock	1,443,227	895,701
Earned surplus	451,453	222,013
▲After res. of	187,625	196,807
*After depr. of	32,799	19,951

▲Not consolidated.

Working capital	4,354,684	2,677,243

Note: In the consolidated balance sheet for 1953, reserves for doubtful accounts and for deprec. are not deducted from the asset in the company's report.

4 Ships Joining Mtl.-Europe Run

MONTREAL (Staff) — There will be an important addition to the passenger fleet operating out of Montreal this spring, when the 850-passenger SS Arosa Star begins regular runs between Montreal, and ports in Germany, Great Britain and France.

Owned by Arosa Line (Canada) Ltd., the vessel will join its sister, SS Arosa Kulm, on the same run. The ship was converted from a troop carrier after the war at a cost of around $2.5 millions, and further repairs, estimated at $1 million are soon to be carried out at Bremerhaven, Germany.

Canadian Pacific Railways is building a 22,500-ton liner in Scotland, while the Cunard Steamship Co. has two new passenger ships under way in England—all earmarked for the Montreal-Europe run. During 1953, some 59 passenger liners entered and cleared Montreal harbor—nine less than in the previous year.

NOTICES

THE BRITISH AMERICA ASSURANCE COMPANY

NOTICE is hereby given that The British America Assurance Company has received from the Department of Insurance, Ottawa, Certificate of Registry authorizing it to transact in Canada the business of Forgery Insurance, in addition to the classes for which it is already registered.

DATED at Toronto, this 1st day of February, 1954.

W G CHAPMAN, Secretary.

NOTICE

NOTICE is hereby given that the What Cheer Mutual Fire Insurance Company, having ceased to carry on business in Canada and having reinsured its liabilities in Canada as at October 31, 1953, in the Blackstone Mutual Insurance Company which is registered under the Foreign Insurance Companies Act to transact business in Canada, will apply to the Minister of Finance for the release on the first day of April 1954, of the securities on deposit with the Minister of Finance; and that any Canadian policyholder opposing such release should file his opposition thereto with the Minister of Finance, Ottawa, on or before the first day of April, 1954.

Dated at Toronto this 27th day of November, 1953.

JAMES P. McD. COSTIGAN.

RELIANCE INSURANCE COMPANY OF PHILADELPHIA

The Company is now authorized to write in the business of AUTOMOBILE INSURANCE and PERSONAL ACCIDENT INSURANCE, provided in connection with a policy of automobile insurance against liability for bodily injuries, limited to expenses incurred arising from bodily injuries suffered by driver and passengers and resulting from the ownership or operation of an automobile, in addition to the classes for which it is already registered.

THE BRITISH EMPIRE ASSURANCE COMPANY

NOTICE is hereby given that The British Empire Assurance Company has received from the Department of Insurance, Ottawa, Certificate of Registry authorizing it to transact in Canada the business of Forgery Insurance, in addition to the classes for which it is already registered.

DATED at Toronto, this 1st day of February, 1954.

W G CHAPMAN, Secretary.

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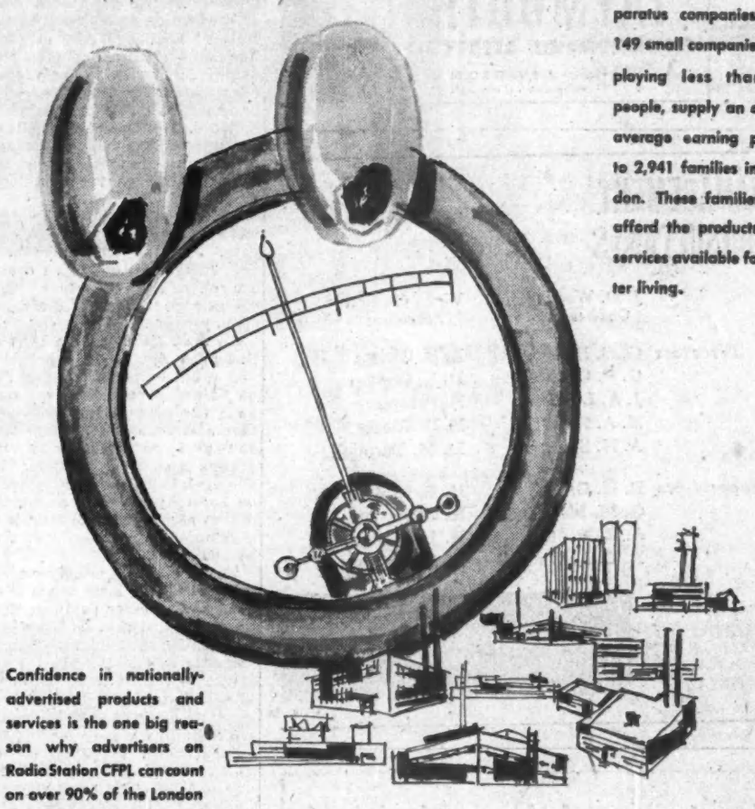

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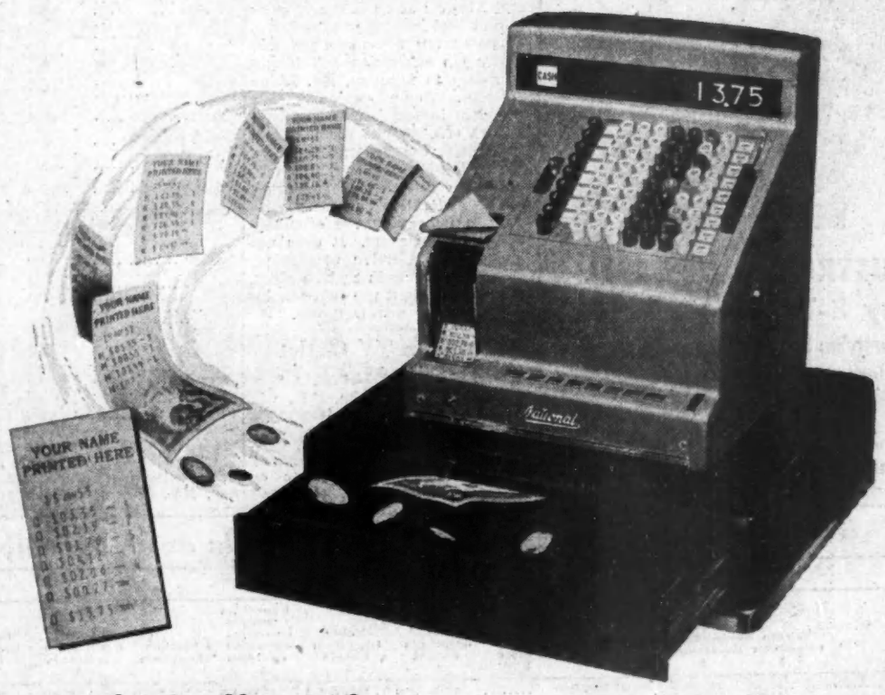

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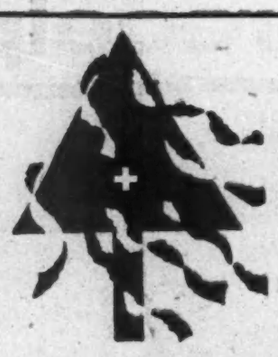

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73% of Bank Employees Now Work On 5-Day Week

Canada's commercial banks employ 46,300 workers in approximately 4,000 branches distributed across the country, it is shown in a survey by the Department of Labor, into working conditions.

It was the first time the chartered banks had been included in the survey conducted by the Department's Economics and Research branch.

Almost three quarters (73%) of bank employees were in branches operating on a five-day week.

Authority for the banks to introduce a five-day week was granted by an amendment to the Bills of Exchange Act, in 1951. The Bills of Exchange Act required the banks to keep open every lawful day, that is every day except Sundays and statutory holidays. It provided that bills of exchange falling due on a Sunday or certain statutory holiday became payable on the next legal day.

Sundays and statutory holidays were regarded as "non-juridical" days. Juridical days have been defined as days on which courts are open and on which legal claims such as notes or drafts become payable.

An amendment to the Bills of Exchange Act in 1951 provided that a bill or note becoming due on Saturday cannot be enforced until the next business day but that a cheque can be presented and paid on Saturday if the drawee is open for business. But non-acceptance or non-payment on Saturday does not entitle the person presenting it to treat it as dishonored by non-acceptance or non-payment.

The amendment merely made it optional for the bank to pay it on Saturday or defer payment until the next legal day. This made it possible for the banks to close on Saturday as desired.

One big reason the banks sought to have Saturday declared a non-juridical day was that the banks were having difficulty getting and holding staff, especially in the larger places, while on a five and one half day week, while so many industrial and financial offices were on a five day week.

Generally "bankers' hours" ranged from 35 to 45 hours; 27% of all bank employees were working 35 to 38 hours; 56%, 40 hours; 17% 41 to 45 hours.

Usual length of vacation time allowed bank employees ranged from two to three weeks, every bank employee becoming eligible for two weeks' vacation with pay during or on completion of first year of service. Some banks allow three weeks' vacation with pay if the employee takes his holidays in the winter. Longer vacations are granted employees with over 15 or 25 years' service. One bank reported that employees get one additional day's vacation for each year after 15 years' service until a maximum of three weeks is reached.

The survey also showed that bank employees are paid for all statutory holidays, including holidays proclaimed to celebrate the Queen's birthday, and Thanksgiving Day; any day proclaimed by any province as a public holiday or a day for public thanksgiving, and any day fixed by statute as a non-juridical day. In Quebec bankers also get Epiphany, Ascension Day, All Saints' Day and Immaculate Conception Day.

Replies to question as to whether employees receive compensation for overtime worked, ranged from "No" to "in accordance with provincial legislation." Six banks indicated that a meal allowance is given to employees working excess hours.

All but one bank had a practice of compulsory retirement on reaching a stated age but in six banks the policy was stated for male employees only. All 10 banks had pension plans, but two stated it covered male employees only. Every bank indicated provision for sick leave. Nonoccupational sickness and accident benefit plans were reported by five banks employing more than half the total employees. The survey covers only 10 banks. Another bank which started business in December was evidently not covered by the survey.

Study Salaries Among Engineers

A sample survey of salaries of engineers and physicists in Canada is shortly to be released by the Canadian Federation of Engineers and Scientists.

Previous studies were either based on "salaries against years since graduation" or were too unwieldy to determine average salaries for all phases and divisions of engineering, according to J. M. Milne, executive secretary of the Federation. The new survey will evaluate jobs, not men.

The Federation claims about 1,500 members, all employee engineers or scientists. It was formerly the Federation of Employee Professional Engineers.

It states that membership includes all engineers in the Toronto Hydro and the Hydro Electric Power Commission of Ontario, Canadian National Telegraphs, the Davenport, Peterborough and Guelph plants of Canadian General Electric and a large proportion of Westinghouse engineers.

The survey will make possible better job evaluation and fitting of salary to function, Mr. Milne believes. Some engineers are overpaid in relation to responsibilities entrusted to them, others underpaid, the Federation holds. Result is high engineer turnover, costly to companies and engineers.

The Federation's primary purpose is improving the economic status of engineers. It does not engage in collective bargaining, though members in a given plant, it's stated, might use information it gathers for such purposes.

Saint John TV Outlet To Telecast March 15

CHSJ-TV, Saint John, N.B., will be on the air March 15, joining the CBC's television network as a basic non-interconnected station. The private station will be the Maritimes' first. CHSJ-TV will operate on Channel 4, radiating 27,800-watt video and 13,900-watt audio signals. It will be joined by two more Maritimes stations, at Halifax and Sydney, N.S., later this year.

Life Sales Up For 12 Months

Canadian purchases of new life insurance in 1953 were approximately $2.5 billions, an increase of about 10% over the previous year. Figures include ordinary, industrial and group insurance. The sales of ordinary insurance showed an increase in every month of the year.

Sales of ordinary insurance in December were $178.8 millions ($163 millions in December 1952). Industrial sales were slightly higher than in the same month of 1952, but sales of group for the month were lower. Total sales of all three classes of insurance for the month were $225 millions ($219 millions in Dec. 1952).

ORDINARY LIFE INSURANCE SALES BY PROVINCES ($000)

December:	1953	1952
Alberta	14,981	12,983
British Columbia	15,929	15,544
Manitoba	9,399	8,422
New Brunswick	3,468	3,513
Newfoundland	1,311	1,189
Nova Scotia	4,643	4,812
Ontario	75,996	60,003
Prince Edward Island	577	595
Quebec	45,800	41,400
Saskatchewan	6,742	6,638
Total Ordinary	178,846	163,097
Total Industrial	14,300	13,500
Total Group	32,100	43,100
Grand Total	225,200	219,700

ORDINARY LIFE INSURANCE SALES BY MONTHS ($000)

	1953	1952
January	143,490	120,216
February	138,366	131,503
March	172,537	149,986
April	160,737	150,324
May	158,621	148,681
June	174,623	157,449
July	163,768	140,836
August	139,782	117,327
September	138,245	128,359
October	188,809	153,259
November	185,883	169,317
December	178,846	163,097
Total	1,935,507	1,731,156

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British Court Awards Girl $39,000 Damages

A large award for personal injuries inflicted in a rather unusual motor vehicle accident in the United Kingdom shows the things considered sometimes in assessing damages.

A double wheel, breaking away from a lorry, bounded on to the pavement, hit a nine-year-old girl and inflicted injuries for which the court awarded her £13,000 ($39,000) general damages at Manchester Assizes. The accident occurred October 1951 and brain injuries it was said altered her personality, left her paralyzed and unable to walk or to speak properly.

Her counsel said: "She can never marry. She can never enjoy the pleasures of motherhood."

The judge said: "The most this girl can hope to do now is to move about in a wheel chair or be assisted from place to place."

The damages were awarded against the owner of the lorry who admitted liability. The award included £451 ($1,353) special damages.

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Position of Chartered Banks of Canada as of December 31, 1953 Shown by Monthly Returns to Minister of Finance

LIABILITIES — SUPPLEMENTARY INFORMATION

NAME OF BANK	Notes in Circulation $	Deposits by & Bal. Due to Dominion Government $	Deposits by & Bal. Due to Prov. Govts. $	Advances from Bank of Canada Secured $	Demand Deposits in Canada $	Notice Deposits in Canada $	Deposits in Canada in currencies other than Canadian $	Deposits Elsewhere $	Bal. due to Other Banks in Canada $	Due to Banks in U.K. $	Due to Banks Elsewhere $	Letters of Credit Outstanding $	Other Liabilities $	Dividends Declared & Unpaid $	Reserve Fund $	Capital Paid up $	Total Liabilities $	Capital Authorized $	Capital Subscribed $	Last Dividend* %	†Loans to Directors & Firms of Which They Are Partners $	Greatest Amount of Notes in Circulation $	Bills Re-discounted with Bank of Canada $
Montreal	.....	144,281,514	7,750,031	.....	732,217,930	1,163,038,402	46,398,176	70,799,394	31,455,662	9,232,059	17,632,791	22,386,246	348,171	58,187	40,000,000	36,000,000	2,415,796,666	50,000,000	36,000,000	12	700,884	.....	.....
Nova Scotia	31,531	41,380,930	7,056,942	.....	260,850,233	455,578,376	17,688,725	92,568,478	15,866,035	1,472,700	13,880,511	15,235,845	729,717	208,195	12,000,000	15,000,000	971,313,625	25,000,000	15,000,000	16(2)	3,262,911	39,661	.....
Provincial	.....	29,327,092	2,867,812	.....	170,379,825	322,384,480	1,855,684	.....	13,956,685	3,763,114	1,119,744	2,241,776	49,043	187,654	6,000,000	6,000,000	578,132,883	10,000,000	6,000,000	14(3)	335,593	.....	.....
Commerce	.....	7,532,521	1,569,123	.....	48,750,272	132,047,520	541,850	.....	4,057,326	.....	213,547	216,138	108,451	39,650	5,000,000	5,000,000	202,196,401	10,000,000	5,000,000	8(1)	1,452,680	.....	.....
Royal	16,341	93,788,397	34,732,600	.....	642,887,623	916,695,109	26,494,701	121,425,414	38,386,519	5,139,841	8,996,151	35,949,452	971,230	994,079	43,000,000	30,000,000	1,999,427,453	50,000,000	30,000,000	12	1,260,816	16,374	.....
Dominion	85,043	119,050,572	33,626,704	.....	820,615,405	1,110,304,349	83,084,963	434,254,930	29,945,475	4,710,429	50,681,877	51,058,029	1,210,121	158,656	70,000,000	35,000,000	2,892,995,410	50,000,000	35,000,000	12	3,280,404	83,335	.....
Nationale	.....	21,578,168	1,062,676	.....	158,968,539	262,345,395	14,048,135	21,351,436	21,736,966	2,152,885	3,037,940	7,523,788	269,642	218,695	12,000,000	7,000,000	523,406,256	10,000,000	7,000,000	12	449,423	.....	.....
Imperial	.....	23,629,634	2,907,591	.....	320,353,157	131,385,803	1,424,490	928,511	4,736,839	124,153	1,147,471	964,705	39,794	41,520	6,000,000	7,000,000	513,683,673	10,000,000	7,000,000	10	823,789	.....	.....
Barclays	.....	16,300,582	14,573,863	.....	263,222,189	326,266,457	2,788,424	.....	3,090,333	4,829,906	6,538,252	205,202	221,106	12,000,000	7,000,000	7,000,000	686,780,646	10,000,000	7,000,000	12	821,838	.....	.....
Mercantile	.....	1,638,638	6,951	.....	16,520,776	7,985,530	3,472,949	.....	833,281	3,153,469	1,764,316	3,125,279	.....	.....	3,000,000	3,000,000	37,500,792	3,000,000	3,000,000	.....	.....	.....	.....
	.....	.....	.....	.....	231,568	59,047	.....	.....	.....	208,970	643,598	.....	618,919	.....	400,000	1,500,000	3,662,101	3,000,000	1,500,000	.....	.....	.....	.....
Total	133,915	496,501,448	170,784,294	.....	3,180,050,163	5,034,049,913	196,797,677	741,328,613	182,427,115	33,048,953	105,247,850	155,219,601	6,630,290	2,778,755	260,400,000	182,500,000	10,715,915,936	231,000,000	152,500,000	.....	13,218,428	132,370	.....

*Extra dividend also shown. †And loans for which they are guarantors.

ASSETS

NAME OF BANK	Gold and Subsidiary Coin held in Canada $	Gold and Subsidiary Coin held Elsewhere $	Notes of Bank of Canada $	Deposits with Bank of Canada $	Notes and Cheques on other Banks $	Govt. and Bank Notes other than Canadian $	Balances due by other Banks in Canada $	Due by banks in U.K. $	Due by banks elsewhere $	Dom. Gov. Short Term Sec. $	Dom. Gov. Long Term Sec. $	Prov. Gov. Short Term Sec. $	Prov. Gov. Long Term Sec. $	Canadian municipal securities $	Public Securities other than Canadian $	Other bonds & stocks $	Call and short loans in Canada $	Call and short loans elsewhere $	Current loans in Canada $	Current loans elsewhere $	Loans to prov. governments $	Loans to municipalities $	Non-current loans $	oReal estate other than Bank premises $	Bank Premises $	Deposit for note circulation $	Other assets $	▲Total assets $
Montreal*	3,789,410	9,894	39,412,920	127,182,467	176,545,621	1,898,292	41,396	1,885,719	38,587,914	161,558,893	852,685,397	40,379,564	55,717,456	30,319,978	62,006,699	116,781,610	24,646,344	65,575,507	785,074,515	18,465,239	2,032,030	20,933,410	634,166	67,066	28,547,859	.....	2,338,543	2,416,504,203
Nova Scotia	2,091,939	433,522	30,902,167	66,569,914	66,473,883	6,716,471	.....	931,331	22,426,584	37,918,371	119,020,509	2,168,389	6,290,538	7,871,301	7,644,627	20,183,615	22,545,115	29,872,126	439,208,363	50,144,437	9,435	6,542,274	94,093	.....	8,852,408	.....	5,276,498	972,376,932
Toronto	1,026,938	.....	14,199,893	44,340,736	45,154,918	932,253	.....	974,177	7,617,437	51,363,478	128,217,318	5,668,585	6,883,709	8,891,403	1,197,198	17,473,253	5,722,275	.....	217,542,725	.....	.....	6,528,063	23,554	37,658	9,194,499	.....	.....	378,453,904
Commerce†	3,008,922	39,978	40,264,122	140,179,462	118,570,016	2,779,596	132,973	1,668,101	46,004,734	15,373,084	29,118,131	8,089,494	12,292,972	9,511,563	.....	6,368,327	4,176,366	.....	73,418,697	14,544	4,466,192	23,919	126,556	2,981,931	.....	259,066	268,276,712
Royal†	3,830,228	842,629	64,399,706	151,685,782	165,281,771	28,503,029	1,686	9,873,448	130,671,716	124,220,014	619,668,310	44,491,877	44,242,087	34,816,461	92,279,203	100,390,460	48,579,317	109,669,548	808,774,445	132,244,279	6,454,047	13,420,894	253,716	90,943	21,131,733	.....	5,313,315	2,834,516,735
Dominion	1,013,891	619	11,885,757	33,031,901	49,570,421	556,506	.....	2,492,077	12,421,931	54,711,154	51,386,399	3,523,835	3,165,198	6,180,848	.....	5,672,704	3,934,251	28,875,414	242,492,250	2,377,597	.....	2,136,354	23,386	.....	2,317,324	.....	247,911	834,048,747
Nationale†	1,718,587	20	21,808,198	23,027,617	24,932,146	654,455	.....	24,807	2,329,206	66,416,261	69,414,069	10,233,671	30,433,887	11,916,419	1,153,826	13,321,340	2,830,673	.....	209,883,865	815,704	3,214	14,930,889	37,503	.....	7,483,251	.....	46,761	314,109,614
Imperial	1,326,782	.....	10,909,035	27,864,866	26,475,092	805,703	361	2,566,880	6,548,869	41,782,404	104,017,122	2,916,252	11,158,486	10,260,440	.....	7,901,326	5,966,925	.....	262,317,026	2,304,040	980,104	5,127,260	32,457	.....	6,864,606	.....	10,178	609,386,353
Barclays	7,112	.....	220,323	4,474,538	1,287,325	29,745	164,296	1,017,894	1,562,461	6,059,916	9,370,492	406,863	3,325,508	625,972	716,938	100,000	291,500	.....	7,979,996	.....	.....	.....	628	.....	1,190,245	.....	23,713	37,711,909
Mercantile	3,548	.....	26,892	1,099,087	150,036	8,116	100,000	45,818	409,170	1,203,125	.....	.....	.....	.....	202,000	.....	.....	.....	10,215	.....	.....	.....	.....	.....	20,330	.....	119,383	3,577,727
Total	18,433,668	1,962,318	269,781,792	621,693,549	782,569,843	43,288,966	440,776	21,580,594	280,122,711	726,582,808	2,033,773,666	146,219,392	188,119,356	151,879,654	223,884,594	349,996,696	126,513,632	271,884,505	3,790,301,238	205,060,653	10,369,914	96,415,053	1,977,770	931,846	109,462,543	.....	29,703,897	10,722,306,868

*The business of the Bank in San Francisco, U.S.A., is carried on under the name of a locally incorporated company and the figures are incorporated in the above return.—Footnote in Bank of Montreal return.

†The Canadian Bank of Commerce (California) has been incorporated under the laws of the State of California to conduct the business of the Bank in that State and the assets and liabilities of The Canadian Bank of Commerce (California) are included in the above general statement.—Footnote in Canadian Bank of Commerce return.

‡The Royal Bank of Canada (France) has been incorporated under the laws of France to conduct the business of the Bank in Paris and the assets and liabilities of the Royal Bank of Canada (France) are included in the above general statement.—Footnote to The Royal Bank of Canada return.

▲Banque Canadienne Nationale (France) has been incorporated under the laws of France to conduct the business of the Bank in Paris and the assets and liabilities of Banque Canadienne Nationale (France) are included in the above general statement.—Footnote to Banque Canadienne Nationale return.

oIncludes mortgages.

▲Total assets include $155,219,601, letters of credit outstanding as shown in liabilities.

ANNOUNCEMENT

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New Quebec Income Tax Means Ottawa Will Give Up $8-9 Millions A Year

OTTAWA (Staff) — Quebec's new income tax will not cost the Federal Government more than $8-9 millions a year, it is calculated. This is because of Mr. Duplessis' high exemptions. By letting off unmarried people earning less than $1,500 and married people up to $3,000, he exempts probably half the Quebec residents who are liable to federal income tax. But he also reduces the possible yield of his tax by fully one third. The loss to Ottawa from the permitted deduction of 5% of federal tax is reduced proportionately.

By contrast a full 15% deduction from the federal tax, such as some Quebec organs are suggesting, would be quite a different story. Presumably it would have to be made at the federal rate of exemptions, and at that rate it would come to about $40 millions for Quebec alone. Applied to Ontario also, as it would have to be, it would cost something like $84 millions. Under the terms of the federal-provincial tax agreements, any concession made to one province must be available to all, though this particular concession is one which would only benefit the richest provinces.

Apart from the higher exemptions, Mr. Duplessis' income tax bill appears to follow the federal income tax in such matters as definition of income and allowable deductions. It is, in part, a straight copy of the Federal Act, in part a paraphrase, and in places it merely makes the federal law applicable. In one or two places, such as Section 12, the Provincial Government has kept the power to make its own rulings.

Even the exemptions, as the Quebec Bill now reads, follow the federal pattern in everything (such as allowances for children) except the basic rates.

Rates Start At 2.3%

The sliding scale of tax rates follows the federal scale at approximately 15%. It starts at 2.3%, where the federal rate is 17% and rises to 12% where the federal rate is 80%.

After earlier talk about a yield to the province of some $25 millions, the Provincial Finance Minister, Onesime Gagnon, now estimates a yield for next year of only $22 millions. This looks like a very conservative estimate. It may allow for the difficulties of collection. Mr. Gagnon has not apparently allowed for them on the expenditure side of his budget. His estimates for the Department of Finance next year are up by only $65,000.

The Federal Government has pared its cost of collection (for all taxes) below 1%. But it has well-established tax rolls. As it seems here, the Quebec Government may have to spend quite a lot of money if it is to make anything like an efficient collection of its new income tax.

If Quebec could collect the tax at least as well as the Federal Government does, it would appear that the yield ought to be near $27 millions, rather than $22 millions. But a good deal of assumption is necessary in all these calculations.

How It Works Out

Here is a basis of calculation, with its accompanying assumptions:

1. The federal estimate of the yield of income tax for all Canada in the current year was $1,250 millions. Something rather more than $50 millions of this is from non-resident tax.

2. The proportion of all income taxes coming from the Province of Quebec in the last year for which published figures are available (1951) is about 22%.

3. Federal authorities estimated last year that if they increased exemptions to the level now adopted by Mr. Duplessis they would lose $415 millions—or approximately one third of the total take.

4. On the basis of these exemptions, the federal take would be about $800 millions and Quebec's share—22% of the total—$176 millions.

5. Mr. Duplessis' share, at 15% of the federal take, would be $26.4 millions. If the Federal Government gave up 5% of this, its loss would be $8.8 millions.

Effect On Other Provinces

Applying these same, very rough, assumptions to the over-all picture, here are some of the conclusions:

All the tax rental agreements made by Ottawa with the provinces contain identical provisions relating to "Undertakings respecting Equal Treatment of Provinces." They provide that if Canada enters into an agreement with another province, every province shall be entitled to its benefits.

If Quebec is given special treatment on account of its income tax, the other provinces can claim—in the text of their agreements—"to require that the (appropriate) clause in their agreement be amended so that it will be expressed in like manner . . . and to like effect . . ."

On the basis of present federal exemptions from income tax, the Quebec claim for allowance of a 15% deduction would give Quebec about $40 millions a year. It would give Ontario (which accounts for about 47% of federal income tax payments) $84 millions. It would give British Columbia (on the basis of 11% of federal income tax) nearly $20 millions.

If these three richer provinces also collected a 7% tax on corporation profits, the general result would be:

—Ontario would be about $40 millions better off than it is under its present Tax Rental Agreement.

—Quebec would get just about as much as is now available to it under the Tax Rental Agreement.

—British Columbia would be pretty near the break-even point.

—All the other provinces would be worse off than they are now.

The Federal Government, therefore, would have to give Ontario, Quebec and British Columbia the chance to take 15% on personal income tax, plus 7% on corporations, plus whatever they chose on succession duties. In rough terms it would lose about $150 millions on personal income tax, nearly $170 millions on corporation taxes and, perhaps $15 millions on succession duties: a total of about $335 millions.

Its tax rental payments to Ontario and B. C. in the current year come to $178 millions; and Quebec could have another $120 millions.

So the total effect would be to leave the three richest provinces to take their pick of the taxes up to certain limits, while Ottawa remained responsible for keeping up the agreed payments to the other seven provinces. And, if the Federal Government started on that course, it is argued, why should it stop at 15% or 7%. The rich provinces might just as well claim that they should have 25% or 50% or 100% of certain tax fields. And then the whole basis of the tax rental agreements—designed to provide a fairer distribution of the tax load—would have to be destroyed.

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COMPANY REPORTS

To assist readers in appraising and comparing company financial statements, The Financial Post has a uniform method of presenting corporation accounts. Variations from the companies' published reports are footnoted.

Textiles

DOMINION WOOLLENS & WORSTEDS LTD. net profit for 1953 was $81,530. In 1952, net loss was $482,493.

Imports of woolen and worsted fabrics increased considerably again throughout 1953, notes President Henry Barrett. Wool prices increased by 15% during the first half of 1953, following which there was a gradual decline until the year-end.

As a result of losses in 1951 and 1952, earnings over the next four years to a total of $1,442,000 may accrue without being subject to federal income tax. Capital expenditures in 1953 amounted to $51,233.

"The immediate outlook is uncertain," says Mr. Barrett, "as imports are continuing in large volume at low prices."

INCOME ACCOUNT

Years Ended Dec. 31:	1953	1952
Sales	$6,672,344	$6,864,306
Net earnings	199,162	*417,961
Less: Deprec.	75,000	.....
Debt. interest	62,632	64,632
Net profit & surplus	61,530	*482,493
*Loss or deficit.		
Times Bond Interest Earned:		
Before deprec.	3:18	....
After deprec.	1.98	....
Earnings per Share and Dividend Record:		
Common: Earned	$0.43	d$3.28
Paid	nil	nil

CONDENSED BALANCE SHEET

As at Dec. 31:	1953	1952
Cash	$10,088	$11,353
Accts. rec.	645,810	610,360
Inventories	2,197,230	2,297,319
Total curr. assets	2,853,228	2,919,232
Prep. exp.&	11,649	17,219
Invest. in subs.	5,450	6,042
Misc. assets	22,526	26,098
Fixed assets*	2,157,666	2,209,614
Total assets	5,060,519	5,178,295
Bank loan	2,145,000	2,315,000
Other curr. liab.	737,479	759,894
Total curr. liab.	2,882,479	3,074,894
Funded debt	1,299,300	1,299,300
Capital stock	917,548	917,548
Earned surplus	†38,808	†113,537
*After depr. of	2,770,769	2,772,937
‡Included in curr. assets in co's report.		
†Deficit.		
Excess of curr. liabs. over curr. assets	29,251	155,662

Contingent liability—Mortgages guaranteed by subsidiary, totaled $33,967 as at Dec. 31, 1953.

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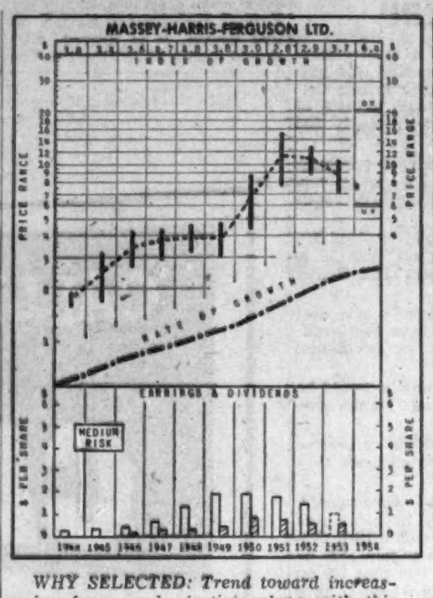
Selected Growth Stocks — Quarterly Review — By NESTOR

The Financial Post's exclusive series of Selected Growth Stocks was chosen by one of the continent's most prominent and successful investment advisers. The reasons for choice shown below the accompanying charts were those given when stocks were chosen in January, 1953. Each will be reviewed quarterly. Publication of this series in The Post does not constitute a recommendation to buy these stocks.



WHY SELECTED: Trend toward increasing farm mechanization, along with this company's world-wide dealer organization, the addition of new devices and improvement of old ones by its active and able research staff, suggest continued leadership and sales growth for Massey-Harris (now Massey-Harris-Ferguson). Per share earnings increased 433% between 1937 and 1947, 166% 1947-51.

Massey-H

At recent $8⅛-a-share market price, Massey-Harris-Ferguson common trading 42% above its UV level, leaving room for 135% rise before stock would hit its OV level. Range 1953-54, $10⅛-$7⅛. Yield at $8½, 7.06%.

Drop of 20% in company's North American implement sales in fiscal '53, due mainly to decline in U.S., plus lower export sales, reduced earnings to 96c a share ($1.41 the previous year).

Working capital increased $4 millions (to $106 millions). Cash and government securities were up $7½ millions. Inventories were $2 millions lower, reflecting a substantial cut in implement inventories and a partially offsetting increase in inventories on defense contracts.

In addition to the sales factor, higher material and labor costs contributed to lower earnings last year.

Ferguson organization with its new lines and strong research background expected to put M-H-F in stronger competitive position this year. World-wide implement sales of Ferguson last year were $120 millions compared with $204 millions for Massey (Ferguson accounts not included in '53 Massey statement).

Better crop conditions in U.S. areas affected in '53 by drought should help market there. Farm income, though lower, still at high level. U.S. Government modifying but still maintaining price support program on farm products.

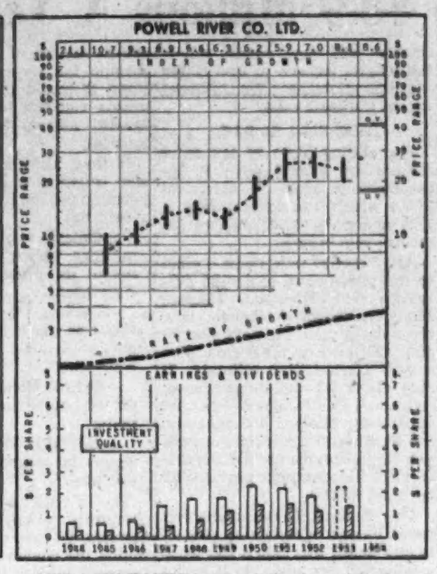
OV level. Price range in 1953-54, $27¾-$20. Yield at $27½, 5.27% on basis of $1.45 paid out of '53 earnings.

Company follows policy of paying out 60% of annual earnings in dividends. On this basis, 1953 earnings estimated at around $2.35 a share. First half net was $1.06 (87c in '52 first half), and 1952 net $1.89.

Newsprint demand for '54 strong so far and expected to remain that way for balance of year. U.S. inventories below level of year ago, and consumption still on the increase. Overseas demand also strong. Price has been steady.

Lumber prices still relatively weak, though demand has been better.

Pulp demand has been stronger, with unbleached sulphite prices slightly higher in first quarter, should improve revenues from this source. Powell River's market pulp output in first half of '53 was 24% below level of comparable '52 period.



WHY SELECTED: One of the few units in the industry able to report net profits through the depressed 'thirties, Powell River Co., a major west coast producer of newsprint and sulphite pulp, has demonstrated the ability of its management and the efficiency of its operating methods and should continue to share in the growing demand for the products supplied by it. Per-share earnings increased 303% between 1937 and 1947, 54% 1947-51.

Powell River

Current chart shows Powell River Co. common, at $27½ a share, trading 53% above its UV level and a 49% rise short of its OV level. Price range in 1953-54, $27¾-$20. Yield at $27½, 5.27% on basis of $1.45 paid out of '53 earnings.

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How To Read The Stock Chart

INDEX OF GROWTH: The rate at which the value of the equity behind the stock is doubling as determined by the growth rate at which it entered the year. A figure of 5.6 for the present year would indicate that at its current growth rate, the equity value is doubling every 5.6 years.

PRICE RANGE: The annual high, low and mean price. Monthly ranges for the current year.

UNDERVALUATION AND OVERVALUATION PRICE LEVELS: Shown by the narrow horizontal lines above and below the stock's price range indicating price at which the particular stock is adjudged as underestimating or overestimating its future rate of growth. A stock showing a fast-growth rate will sometimes anticipate growth by two or three years. In this case, it may not be so attractive a purchase relatively as some other fast-growing stock that is not anticipating its growth beyond the immediate present. Other factors such as rate of growth and investment quality, will also enter into the comparison an investor will want to make.

Without these UV and OV levels, a current quotation of, say, 35 or 75 would carry no significance regarding long-range value. The UV/OV levels also permit judgment as between one stock and another. They are not designated points of purchase or sale, nor do they attempt to show what will be a stock's bottom or top figure in any given year.

RATE OF GROWTH: The rate, as based on Nestor's tests, at which the company is showing underlying or long-term growth. This will determine the price trend of the company's common stock over a period of years, and in most instances, the trend of dividend payments.

Background and principles behind the selections by Nestor were discussed in a special article in The Financial Post Jan. 10. A limited number of reprints are available on request.

Defense Contracts

Here are contracts of $10,000 or more awarded to Canadian firms during the first half of January, 1954, by the Department of Defense Production and Defense Construction (1951) Ltd. The list, including $1,196,920 awarded by Defense Construction, totals $4,356,062; classified contracts and amendments to earlier orders not included:

Contractor	Commodity	Value
Acme, Bertram Machine Tools, Toronto; milling machine, attachments		$ 33,568
Allen Constr. Co., Three Rivers, Que.; folding tables		26,606
Allen Constr. Co., Three Rivers, Que.; folding tables		33,918
Allen Constr. Co., Three Rivers, Que.; folding tables		10,217
Aro Equipment of Canada, Toronto, aircraft oxygen equipment		44,880
Associated Screen News, Montreal; cameras, attachments		27,038
Associated Screen News, Montreal; photographic equipment		35,269
Les Ateliers Duval Ltd., St. Romuald, Que.; typewriter desks		16,236
Automatic Electric Sales (Canada) Ltd., Toronto; time clocks, accessories		12,125
Aviation Electric Ltd., Montreal; aircraft instrument test equipment		12,632
Bedard Girard Ltd., Halifax; plans for electrical installations in ship		14,000
John Bertram & Sons Co., Dundas, Ont.; repair of gun borer		14,145
British Ropes Canadian Sales, Lachine, Que.; hemp line		11,374
Canada Packers Ltd., Toronto; meat		20,337
Canadair Ltd., Montreal; technical publications		25,000
Canadian Arsenals Ltd., Ottawa; ordnance components		43,648
Canadian Arsenals Ltd., Ottawa; ammunition components		23,760
Canadian Industries Ltd., Montreal; cartridges		38,491
Canadian Line Materials Ltd., Ottawa; charging equipment		61,685
Canadian Vickers Ltd., Montreal; ships' machinery		36,507
Central Scientific Co., Toronto; instrument test equipment		30,510
Charters Chemicals Ltd., Montreal; paint remover		12,929
Charles Churchill (Canada) Ltd., Toronto; lathes and attachments		26,571
Alex. L. Clark Ltd., Toronto; photographic equipment		17,600
R. B. Colwell Ltd., Halifax; dairy products		11,386
Contractors Mach. & Equipment., Hamilton; spares for cranes		19,971
Crescent Creamery Co., Winnipeg; dairy products		15,902
De Havilland Aircraft of Canada Ltd., Toronto; overhaul and repair of aero engines period Jan. 1, 54 - Mar. 31, 1955		120,000
De Havilland Aircraft of Canada Ltd., Toronto; overhaul and repair of aero engines during period Jan. 1, '54 - Mar. 31, '55		1,153,810
Farmer's Ltd., Halifax; dairy products		27,185
Federal Electric Mfg., Montreal; communication equipment		23,100
Federal Electric Mfg., Montreal; radio navigation equipment		19,300
Federal Electric Mfg., Montreal; radio navigation equipment		21,700
Federal Electric Mfg., Montreal; radio navigation equipment		21,900
Federal Electric Mfg., Montreal; radio navigation equipment		23,100
Fruehauf Trailer, Weston, Ont.; spare parts for tanks		40,446
B. F. Goodrich Rubber, Kitchener, Ont.; aircraft parts		28,640
Heywood-Wakefield, Orillia, Ont.; ordnance lockers		59,120
J. M. King Constr., Wainwright, Alta.; gravel		18,360
Laiterie Granger & Freres, St. Johns, Que.; dairy products		21,420
MacDonald Bros. Aircraft Ltd., Winnipeg; modification of aircraft		100,000
Morlen Electric Ltd., Ottawa; photoflash bulbs		12,050
North American Telegraph, Ottawa; rental		10,169
Northwestern Creamery Ltd., Victoria; dairy products		15,241
Pioneer Electric Ltd., St. Boniface, Man.; auxiliary transformer		15,300
Railway & Power Eng., Toronto; aircraft oxygen equipment		39,929
Riverton Boat Works, Riverton, Man.; dinghies (sailing)		10,440
A. V. Roe Canada Ltd., Toronto; engine containers		532,271
Ross-Smith Co., Montreal; tarpaulins		21,462
Rubenstein Bros. Ltd., Montreal; women's overcoats		140,242
J. H. Ryder Machinery Co., Toronto; turret lathe, attachments		14,519
Shell Oil Co. of Canada, Toronto; petroleum products		46,600
Swift Canadian Co.; Moncton; meat		10,543
Union Milk Co., Calgary; dairy products		23,625
Upton, Bradeen & James Ltd., Ottawa; lathes, attachments		25,960
Wales-Strippit of Canada Ltd., Hamilton; sheet metal fabricators & attachments		12,618
Willard Storage Battery, Toronto; batteries		33,072
A. R. Wiliams Machinery, Toronto; lathe, attachments		19,470
Woodlawn Dairy Ltd., Dartmouth, N.S.; dairy products		27,185
Contracts Awarded by Defense Construction (1951) Limited Jan. 1—15 inclusive, 1954		
Armco Drainage & Metal Products, Guelph, Ont.; steelox structure		$ 19,307
Burns & Dutton Concrete & Construction Co. & Mannix Ltd., Calgary; rock fill		128,500
Canadian Comstock Co., Montreal; sub-station		53,935
Canadian Erectors Ltd., Montreal; steel tanks		23,700
C. J. Dryden Co., Montreal; fire protection system		114,500
Eastern Woodworkers Ltd., New Glasgow, N.S.; barrack block		428,790
Foster Wheeler Ltd., Montreal; steam generating unit		47,705
Foster Wheeler Ltd., Montreal; steam generating unit		46,550
Foster Wheeler Ltd., Montreal; steam generating unit		57,514
International Water Supply Ltd., London, Ont.; wells		80,220
Mardo Construction Co., Halifax; garage		15,480
Mortemp Co. of Canada, Toronto; conversion of furnaces		71,242
La Societe d'Enterprises, Amos, Que.; fuel storage buildings		83,557
A. Stroud Ltd., Toronto; boiler & auxiliary equipment		26,920

Long-Range Market Gauge Needed by Pulp and Paper

MONTREAL (Staff) — In total tonnage, gross value of production, number employed, progress in research and forest conservation, and many other ways, 1953 was a peak year for Canada's pulp and paper industry, R. M. Fowler, president of the Canadian Pulp & Paper Association, said recently at the three-day annual meeting.

Generally speaking, he said, the second half was better than the first, and at the year-end there was no evidence of a decline in demand or serious new problems facing the industry.

He described it as a year of stability, with most sectors of the industry sharing the over-all increase of nearly 2% in production from 1952 levels, which raised the total to 9.2 million tons. Expenditures on plant and equipment totaled $180 millions, including $110 millions for new construction, machinery and equipment and $70 millions for maintenance and repairs.

One of the things the president stressed in his address was the need for better estimates of the growth of the market for Canadian pulp and paper products over the next 25 years in order to have the right size and the right kind of productive capacity to meet future demands.

U. S. Demand Outlook

Concerning the published U. S. estimates of future U. S. newsprint consumption (8.75 million tons by 1975), he said that "as far as I know, we have made no real examination of these estimates, have not looked critically at the assumptions on which they are based, and have not come up with alternative estimates of our own.

"The picture is the same for our pulps, second largest item of production," he said. Canada is the world's largest exporter of pulps and we depend for 80% of our market on the U. S. While total American consumption has nearly trebled in the last 25 years, we noted, the percentage of imports in American supply has dropped steadily, and Canada has only been able to maintain her share of the total at around 10%.

On the production front, here's what was revealed in the various reports on the many sections of the industry:

NEWSPRINT: Production hit a record 5,721,296 tons, up 0.5% from 1952. World consumption continued rising and mills operated virtually at their rated capacity. During the year, they raised capacity by 3.4% or nearly 200,000 tons annually.

GROUNDWOOD PULP: Output off very slightly (less than 1%), reflecting a 5.25% drop in production by the market pulp mills. Irregular demand in all export markets, and increased U. S. imports from other countries, affected Canadian shipments.

CHEMICAL PULPS: Output rose to 3.7 million tons, up 5% from 1952 and the second biggest total on record. Currently, demand is buoyant and inventories are down to manageable levels. For 1953, production of dissolving and special alpha pulps, news grade unbleached sulphite, and bleached and semi-bleached sulphate all touched new highs. Production of bleached sulphite paper grades and unbleached sulphate was up from 1952 but down from 1951. Except for strong unbleached sulphite, all producing mills were operating at or near capacity in the closing months of the year. No new chemical pulp mills came into production in 1953, but productive capacity for bleached sulphite and bleached sulphate was raised substantially through increases in existing capacity and increased bleaching facilities.

PAPERBOARD: Production up 8% from 1952 at 739,377 tons for the second highest total on record. Demand was strong and, as the year progressed, domestic demand rose but was partially offset by a drop in export shipments. Shipments to the domestic market hit a new high at 669,000 tons. Prospects for sales abroad are now considered brighter; there was practically no demand in any overseas market during the first nine months of last year.

BOOK, WRITING AND COATED PAPERS: Shipments equalled the 1951 record high, with the 1952 downward trend reversed. Increases in capacity of mills, started two years ago and now complete, may have meant that despite the higher demand the actual capacity of the mills was not taxed in 1953. Exports last year were down from 1952, reflecting both restrictions in export markets and the increased costs of Canadian producers.

SPECIALTY PAPERS: 1953 output hit a new record at 93,690 tons, with the downward trend of the latter part of 1952 reversed. Tremendous developments in the packaging field has been one of the chief factors in the growth of specialty paper use, but mills must try to keep costs down to meet competition from other materials.

WRAPPING PAPER: Production of 238,147 tons up from 1952 and only 13,000 tons below record 1951. Additional production planned by several mills will provide for the increased domestic demand indicated by strengthening in conditions during the latter part of 1953. It will also enable mills to extend their export business, severely handicapped in recent years by currency and other restrictions.

Fredericton's Year A Building Record

From Our Own Correspondent

FREDERICTON — This provincial capital's construction for the civic fiscal year ending Dec. 31 hit an all-time high of $3,081,493, Building Inspector R. H. Colwell has disclosed here. This represents an increase of $818,630 over the previous year's figures and roughly $250,000 above those of the city's record high of $2,833,000 for 1948.

U. S. $ Value in Canada

Daily at Noon as Reported By The Bank of Canada

Week Ended Feb. 12, 1954

Mon.	.96 23/32	Thurs.	.96 16/32
Tues.	.96 20/32	Fri.	.96 16/32
Wed.	.96 19/32	Ave.	.96 96/160

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How To Be A Successful Salesman

As a Career, Here's What Salesmanship Demands—and Gives

The salesman, a key man in our economy, needs professional training. Salesmanship demands the best of the best men available. Like any professional man, the salesman must be a lifelong student. These are the views of A. H. Carter, manager, insecticides division, Sherwin-Williams Co. of Canada, adapted from a recent address to the Paint and Varnish Club of Quebec. Here is a digest of Mr. Carter's address:

By A. H. CARTER

It is high time that the salesman be given his rightful place in the sun — that the profession be accorded the dignity and prestige it deserves.

The moment has arrived when a job of "selling salesmanship" must be undertaken, in order that the salesmen of the future may be recruited from the best brains in the country.

Selling is one of the most honorable and fascinating professions. Good salesmanship is based on honest service to others. It affords satisfaction in the variety of situations encountered and in the high skill required to influence the thoughts and feelings of customers.

Training for salesmen is just as necessary as it is for any other group of producers. Farmers, bankers, dentists, engineers and teachers — all receive training before they engage in their activities. Whenever a salesman fails to measure up to his responsibilities and opportunities, the chances are that he has not been trained or that he has been poorly trained.

Business and merchandising are no longer arts — they are sciences. A salesman will have greater success if he will recognize that change — and use the scientific approach. The scientific approach will give him a much clearer conception of who his customers and prospects really are — how much his customers use his product, what they use it for, the channels of distribution through which they buy it, and why they buy it.

With the scientific approach to selling he can determine what sales appeals will be most effective and what conscious and subconscious motives will affect the purchaser.

Sales a Science

If salesmanship is a science, the more the salesman studies both on and off the job, the more training he gets, the greater will be his success, both in sales results and earnings — provided, of course, that he is interested in accomplishing a better job.

Nearly all authorities on the subject are in agreement that salesmen are not born; they are made. What "makes" them is years of experience and training, so there is a constant need for good sales training, whether it is for new men, for old timers, or for a mixed group.

The statisticians tell us that on an average, 80% of the sales are made by 30% of the salesmen.

A man must have certain inherent aptitudes if he is to become a successful salesman and these can often be determined by aptitude tests. However, these aptitudes are merely the embryo of the salesman, and form the foundation on which he will build his superstructure.

Nobody intuitively knows the art of salesmanship, but the correct aptitudes enable him to absorb and apply the lessons he is taught by his instructors, and if he works diligently to absorb the facts and intelligently apply them, he will succeed. Many of the best salesmen I have known have become failures because they were either lazy or indifferent.

Hard work is, of course, the first essential, but to the enthusiastic salesman, the work becomes play and his whole business life is like a great game of chess. He thinks as he moves, and each sale he makes gives him a sense of pleasure and pride of achievement, which is over and above any financial reward he may receive. Then again, he is filling a useful place in society and helping the national economy.

The salesman is the ambassador of his firm. In many cases, as far as customer is concerned, he is the firm.

He is often the only individual who is personally acquainted with the customer and in many cases, all the customer knows about the firm and its products is what the salesman tells him.

Do you not agree, therefore, that salesmen should be picked from the top-ranking students and best brains in the country? True, you need good accountants and production men, but why should selling take the lower grades, when all the development of production and accounting depend on the efforts of the sales force.

Here are some of the basic qualities needed to make a success of selling as a career:

Industry and work organization — a top indispensable quality for success in any profession — is at the top of any list of qualities necessary for a successful selling career. Without work other qualities are of little value.

Ability to "sell yourself" — to get a favorable interview and to command favorable attention for what you have to say. One with the manners of a gentleman, who has a knowledge of customer's needs and who is sincerely interested in others has no difficulty developing this quality.

Courage — to face every issue and to assume full responsibility for your actions. The salesman with courage has learned the difference between disappointment and discouragement. He knows that occasional disappointment might delay the fulfillment of his objective but he is never discouraged in his thought to attain it.

Initiative — which is the energy that tends to develop new fields. Salesmen with this quality are self-starters. They have the ability to foresee what needs to be done and will do it. A man with initiative will keep moving forward and will do the many things expected of him without being told. The salesman with initiative is the one who will strive for perfection in his sales presentations. He will analyze every success or failure with a determination to strengthen his strong points and eliminate those that are weak. He will give more of his time and knowledge to better serve his customers.

Knowledge — of the product, of the customer's requirements and of the modern principles of salesmanship. Nothing is so destructive of the customer's confidence in a salesman as to hear the admission that you "do not know." Intelligent, interesting and complete answers to a prospect's questions is a most helpful means of securing orders. These answers can come only from a thorough knowledge of your products and the needs of your customers.

Enthusiasm — that comes from knowledge and love of your work. It is a driving power that causes a man to get genuine pleasure from a hard day's work. Enthusiasm on the part of a salesman breeds enthusiasm on the part of a prospect. An enthusiastic prospect is ready to be sold and will not hesitate to sign the order.

Honesty — the greatest of all virtues — is also one of the most profitable. The honest salesman avoids exaggerations and will not make promises that cannot be kept. Many buyers don a suit of armor — the armor of resistance and skepticism — when they talk with salesmen. They do this to guard against the exaggerating, untruthful, poorly informed, unsympathetic salesman. This armor is as uncomfortable to the prospect as it is to the salesman. He wants to get rid of it and he will do so if he knows you are honest and fair in your dealings — that you have his own interests honestly at heart.

Sincerity — that produces an earnestness of tone and attitude that convinces the prospect you know what you are talking about and mean what you say. Without a note of true sincerity your sales presentation will sound false and dangerous to your success. On the other hand, a sales presentation that "rings" with sincerity is a big step toward securing the order.

Imagination — a dramatic force that sweeps away minor arguments of sales resistance and brings the prospect closer to favorable action. Developing your powers of imagination automatically builds up your possibilities for success, but building up your own vision is not enough. You must be able to stimulate the imagination of your customers so they can visualize the benefits that accrue by the purchase of your product. The salesman who uses his imagination to dramatize important points in his sales presentation; who looks ahead to every possible objection the prospect may have and who has the ability to blend the right amount of imagination and showmanship has vital quality for success in the selling field.

Tact — the skill of saying and doing what is best or most suitable in any given circumstance is of prime importance to get buyers to act favorably. Even though a man has all other requisites for success in selling, the lack of tact may prove fatal to his career.

The tactful salesman never offends; he learns to do and say the right thing at the right time. He does not flatly contradict the person with whom he is conversing. He does not present his opinions as being better than the opinions of another. He does not argue for he knows it is better to lose an argument and win the order than to win the argument and lose the order and the goodwill of the prospect.

Loyalty — to your company and your customers is of utmost importance. When you can convince your customers and prospects that you are just as loyal to their interests as to the company's you have gone a long way toward building the kind of goodwill that expresses itself in permanent, satisfactory relations.

Appearance — "If you would be a success, look like success" are words of wisdom for everyone in the selling profession. A neat, well-groomed appearance and a smiling countenance that is the result of good health will invariably act like a magnet.

Good appearance is something more than wearing your clothes well; it is a quality of character. In every contact, business or social, it is appearance that conveys the first impression and since the salesman's job is to secure favorable decisions, he should begin by creating as favorable an impression as possible. A good rule to follow in personal attire is to dress conservatively and in good taste so that nothing you wear will detract attention from what you are saying about your product or service.

Liking for people — and to become genuinely interested in them is another essential quality for success. If you wish to sell, you have to know people as individuals, and psychologically, as groups.

It is a waste of time for a man who does not like people to try to be a salesman. On the other hand, if you like people you are tolerant of what they think and what they do. There is no better way to find interest in people than to want to be of some service to them and help them to the best of your ability.

In addition to these basic qualities for success in selling, there are others that should be mentioned:

—Good speech and a pleasing voice.

—Ability to put people at ease quickly.

—Poise and self-confidence.

—Ability to take criticism and praise.

—Resourcefulness and flexibility.

Training for Promotion

It is natural to assume that the ambitious salesman looks forward to promotion, and the positions of district sales manager, general sales manager and vice-president in charge of sales are his goals. In order to prepare himself to fill these posts, a study of the art of sales management should be undertaken as soon as possible.

Many star salesmen, who have been promoted to sales managers, have become hopeless failures. They depended entirely on their ability to sell, but this talent is secondary when you are in the sales manager's chair.

Ability to lead and enthuse men, to organize territories, to train salesmen and to plan the advertising and merchandising program, are essential to the successful sales manager and those who aspire to this job should start, right away, to study it.

The best sales managers usually come from the sales staff, but the over-all job is so different to that of the salesman that it cannot be successfully carried out without study and training.

The successful salesman or sales manager is a lifelong student, always on the lookout for new techniques of selling and new information regarding his own particular products. The salesman who realizes these facts and applies himself to the constant acquisition of more and more knowledge, is not only assuring himself a promotion, but is also contributing in no small way to the uplifting of his profession.

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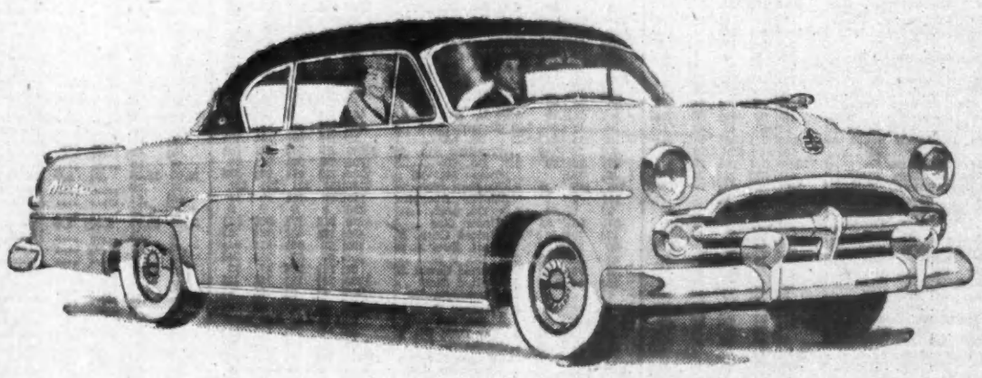

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WEEK ENDING FEBRUARY 13, 1954

Range 1953-54 High	Low	Div. Rate $	Y'ld %	Company	Sales	Last Feb. 13 $	Week end. Feb. 12 H	Feb. 13 L	Close
18¾	12¼	.60	....	Abitibi	27021	18¼	18¾	18¼	18¾
36¼	25	1.50	5.7	Do. $1.50 pref	4285	26¼	26¾	26¼	26¾
7¾	6	.50	7.2	Acadia Atlan.	200	7	6¾	6¾	6¾
13¾	10½	1.20	6.8	Do. A pref.	95	17¾	17¾	17¼	17¼
103	98½	5.00	5.0	Do. 5% pref.	15	100	100¼	100¼	100¼
10	7	.40	4.8	Agnew Surp.	50	8¼	8¼	8¼	8¼
10¼	8	.55	5.9	Do. pref.	34	9	9¼	9¼	9¼
3.85	3.00	-	....	Alta. Con. Gas	100	3.40	3.50	3.50	3.50
2.50	1.45	-	....	Albt. Dist.	3000	1.75	1.90	1.75	1.75
3.50	1.45	-	....	Do. V.T.	2600	1.51	1.80	1.75	1.80
40¼	30	-	....	Algoma Steel	1800	40¼	41	40	40¼
24¼	21½	1.00	4.3	Alum of Can	1680	24	24¼	23	23
105½	100	5.25	5.0	Do. 5¼% pref	960	104	104¼	104	104½
63½	41¼	x2.00	....	Aluminum	13599	49¾	51¼	49¾	51¼
10	7	x.40	....	Andian Nat.	50	7¼	7¾	7¼	7¼
27¼	21	2.00	7.4	Ang. Cdn. Pulp	1500	25	27¼	25	27
50½	38	2.50	5.6	Do. pref.	970	50	50	49¾	50
42	27	2.25	5.7	Ang. Nfld. Pet	87	39¼	40	39¾	39¾
9¾	7	.60	7.2	Ang. Nfld.	3810	8¼	8¾	8¼	8¼
2.85	1.00	-	....	Arcan	3615	1.25	1.65	1.50	1.65
13¾	11¼	.60	4.5	Argus	770	13¾	13¾	13¼	13¾
86	78½	4.50	5.4	Do. 4½% pref	374	82¾	83¼	82¾	83
37¼	23¼	1.00	3.9	Asbestos	5330	25¼	26	25¼	26
19	13	1.00	6.1	Ashdown Hd B	230	16¼	16¾	16¼	16¾
23¾	12¼	1.00	6.2	Atlas Steels	3765	16¼	16¾	15¾	16¼
9¼	7	.60+↑.10	....	Auto Electric	125	9	9¼	8¾	8¾
30¼	23	1.00+↑.20	3.3	Bk. Can. Nat.	1275	30¼	30¼	30¼	30¼
39	31	1.20+↑.20	3.8	Bk. Montreal	4597	38	38¼	37¾	38
44	38	1.60+↑.20	3.8	Bk. N. Scotia	854	42¾	43	42¼	42¼
44¾	38½	1.40+↑.20	3.6	Bk. Toronto	30	44	42¼	42¼	42¼
45	35½	2.00	6.9	Bathurst Pr. A	230	43¼	44	43	43¼
22¾	14	*.75	....	Do. (B)	167	20	20	18	18
6	6	.40+↑.15	....	Beatty Bros.	850	6¾	7	6¾	6¾
14	10	7.0	7.0	Belding Cort p	30	13	10	10	10
40¾	35¼	2.00	5.0	Bell Telephone	21502	39¾	40¼	39¾	40¾
16	12½	1.00	7.3	Biltmore Hat A	5	13¾	13¾	13¾	13¾
45¾	40	2.50	6.0	Blue Ribbon, p	40	40	42	42	42
15¾	13	1.00	7.1	Brant. Cord. A	80	14	14	13¾	14
11¼	6¾	x.03	5.9	Brazilian Tr.	10411	7¾	7¾	7¾	7¾
17¾	14	1.00	6.3	Br Am Bk N's	25	16	16	16	16
22¼	16½	.70	3.2	Brit. Amer. Oil	23457	21¼	22¼	21¼	22
81	76	4.00	5.0	B.C. Elec 4% p	21	80	80	80	80
4.20	2.50	-	....	Com. Alcohol	1000	3.70	3.75	3.75	3.75
6	5	-	....	Do. pref.	25	5	6	6	6
12¼	7	*.15	....	Conduits Nat.	25	7¾	8	8	8
8¾	7	↑.50	....	Cons. Bakeries	550	7	7	7	7
1.15	.75	-	....	Cons Div Sec A	52	75	75	75	75
27	23	1.50	6.5	Do. pref.	10	23	23	23	23
45¼	34¼	1.50+*.75	....	Cons. Paper	13373	44	45¼	43¼	45¼
21	16	1.00	10.0	Cons. Press A	400	7	6¾	6¼	6¼
3½	2	-	....	Do. (B)	790	2.50	2.60	2.50	2.50
24¼	22	.80+*.20	....	Cons. Smelters	16243	23¼	23¼	22¼	22¼
15¾	5½	-	....	Cons. Textiles	125	7	7	7	7
18	14	.80	4.4	Consumers Gas	5960	17¾	18	17¾	18
26¼	21¾	1.50	5.7	Consum. Glass	1235	25	26¼	25¾	26¼
12¾	8	↑.85	....	Corbys A	1365	11¾	11¾	11	11¼
11¾	8	↑.85	....	Do. (B)	195	10¼	10¾	10¼	10¾
9¼	7	.50	5.5	Corr. P. Box	75	9¼	9	9	9
12¾	9	.70	7.0	Cosmos Imp.	221	9¼	10	9¼	10
14	11¾	.60	4.7	Crain, R. L.	100	12¾	12¾	12¾	12¾
27¼	23	2.00	5.4	Crown Cork	20	37	37	37	37
38	27	x1.80	....	Crown Zeller	2170	38	37¾	37	37¾
7¾	5½	4.00	5.7	Crow's N. Coal	213	6¾	7¼	6¾	7¼
45	38	↑2.50+↑3.00	....	David & Fr A	30	43	43	42	42
16¾	13¾	1.50	10.3	Davis Leath A	540	14¼	14¾	14¼	14¾
3¼	2	-	....	Do. (B)	100	3.00	4.70	4.70	4.70
30¼	24¾	1.20+↑.20	3.5	Distill. Seag.	13380	30¼	30¾	29¾	29¾
33¾	27¼	1.20+↑.10	....	Dom. Bank	410	33¼	33¾	33¼	33¾
85¼	69	1.60+↑1.80	....	Dom. Bridge	1656	82	82¾	80	80¾
13	8	-	....	Dom. Coal, pf.	75	8¼	8¼	8	8¼
13¾	11½	.80	6.3	Dom. Corset	175	13	13	13	13
8.50	4.00	-	....	Dom. Dairies	221	4.60	5.00	5.00	5.00
16	10	-	....	Do. pref.	186	14	17	15	17
26¾	20	.60+↑.60	....	Dom. Engineer	625	24	24¼	23¾	23¾
18¾	12¾	.60	4.3	Dom. Foundry	4001	14¼	14¾	14¼	14¼
100	96¼	4.50	4.8	Do. 4½% pf.	215	99½	100	99½	100
40¾	35¼	.80+*.60	....	Dom. Glass n.	450	40	39¼	38¼	39
16	15¼	.70	4.4	Do. pref.	30	15¾	16	16	16
16	9	-	....	Dom. Magnes.	550	13	13¼	13¼	13¼
25¾	24	1.60+↑.60	....	Dom. Oilcloth	375	30	30¼	30	30
13¾	12¼	↑.65	....	Dom. Scot. Inv	8	13¼	13¼	13¼	13¼
48	43	2.50	4.6	Do. pref.	10	48	46¼	46	46¼
16¾	9½	1.00	10.0	Dom. St. & C.	24912	10¼	10¼	9¾	10
20	14	.60	3.0	Dom. Stores	4940	19¼	20¼	19	20
9	7¼	.40	4.6	Dom. Tar & Ch	3330	8¾	8¾	8¼	8¾
21¼	19¼	1.00	4.7	Do. pref.	385	21	21¼	21	21¼
11	6	*.10	....	Dom. Textile	7475	6¾	6¾	6	6¼
4	2½	-	....	Donnell & M A	50	2.00	2.70	2.70	2.70
17	12¼	1.20	7.1	Donohue Bros.	790	16¾	17	17	17
22¼	15	-	....	Dow Brew	1765	20¼	20¾	20¼	20¾
3	3	-	....	East Koot Pr.	50	3.05	3.05	3.05	3.05
85	58	-	....	Do. pref.	200	85	80	80	80
12¾	7	-	....	Brown Co.	19626	11¼	11¾	11	11¾
98	85	x5.00	....	Do. 1st pref.	630	97¾	97¾	96	96¼
50	46	x3.00	....	Do. 2nd pref.	285	49¾	50	49¾	49¾
19	10¼	-	....	Bruck Mills A.	10	10¼	10¼	10¼	10¼
8¼	4	-	....	Do. (B)	319	4¼	4¼	4¼	4¼
40	34	2.40	6.7	Building Prod.	1697	38¾	39	38¾	38¾
22	19	1.00+↑.50	....	Burlington St'l	50	20	20¼	20¼	20¼
44¾	39¼	2.00+*.50	....	Burns & Co. B	378	41¼	44¼	42	44¼
8¾	6¾	.45	5.9	Burrard DD A	425	7¼	8	7¼	7¾
6¾	5	↑.35	....	Butterfly Hos.	200	5	5¾	5¾	5¾
10½	9½	5.00	4.9	Calgary P. 5%	30	10¼	10¼	10¼	10¼
3¼	2¼	.10	3.3	Canada Bread	100	2.75	2.95	2.95	2.95
98	72	4.00	....	Canada Cement	2175	97	97¾	95¾	96
29¾	26¼	1.00	4.5	Do. pref.	2005	26¼	29¼	26¼	29¼
18¼	15¼	1.00	5.7	C. & D. Sugar	1195	17¾	17¾	17¼	17¾
17¾	13	.60+↑4a4.46	....	Can. Fndis (A)	100	13	13	13	13
100	90	↑1.50+1.40	....	Can. Forg. B	50	90	90	90	90
23	19	1.20	5.6	Can. Iron	1370	21¼	21¾	21	21¼
5¾	3¾	3.00	3.7	Can. Life	315	80	81	79¾	81
9¾	7	.50+↑.25	....	Can. Machine	540	9	9	9	9
85	49	2.00+↑1.00	....	Can. Malting	46	54¼	55	55	55
12¾	10	.60	5.6	Can. Nor. Pr.	160	10¾	11	10¼	10¾
29	23¼	1.50	3.9	Can Packers A	50	37¾	38	37	38
33¾	28½	1.50	4.7	Do. (B)	305	32¼	32¾	32	32
61¼	47	2.60+*.20	....	Can. Perman	120	60¼	61¼	60¼	61¼
102¾	98½	5.00	4.9	Can. Safeway p	55	101	101¼	101	101¼
102¾	98½	5.00	5.0	Do. 2nd pref	5	100¾	100¾	100¼	100¾
97	70	1.00	1.0	Can. Steamsh's	155	96	97	96	96
81	45	2.50	5.0	Do. pref.	880	49¾	50	49¾	50
16¾	12½	.80+↑.20	....	Can. Vinegars	35	14¼	14	14	14
34¾	28½	1.20	3.5	Can. Bk. Com.	3690	33¾	34¼	33¼	34¾
23	17	1.25	5.4	Can. Breweries	13005	23	23	22¾	23
40	33	1.25+↑1.25	....	Can. Bronze	520	34¼	35	33	33
23¾	23¼	2.00	6.9	Can. Canners	622	29	29¾	28	29
19¾	14¼	.80	4.7	Can. Car & F'y	640	17¼	17¼	17	17
20¾	16¼	1.00	5.1	Do. pref. A	1530	20	19¾	19¼	19¾
46	20	↑2.10	....	Can. Celanese	6720	20¼	21¾	20	21¾
34¾	29	1.75	5.9	Do. pref.	380	29	31	29	29¾
21	15	1.00	5.6	Do. $1 pref.	80	18¼	17¾	17	17¾
9.65	2.20	-	....	Can. Chem.	1750	8¼	8¼	8	8
7	3	-	....	Can. Collieries	46325	5.85	9.65	5.90	9.05
6	3	-	....	Can. Convert A	100	3	3	3	3
25¼	13	-	....	Can. Cottons, p	75	13	15	13	13
37¼	25	1.70	3.1	Can. Dredge	205	55	55	54	54
25¼	21¼	1.00	4.1	Can. Fairb.	700	24	24¼	24	24¼
2	1	-	....	Can. Food Pr.	195	3¼	3¼	3¼	3¼
10	2	-	....	Do. (A)	25	6¼	6	6	6
66	46	4.50	7.3	Do. pref.	25	61¼	62	61¼	61¼
625	410	8.00	*4.00	C. Gen. Elec.	2.545	550	550	550	550
25¾	20	1.10+↑.10	Can. G. Inv.	840	25	25	24	25	
42	31¾	*.40	....	Can. Indust.	1868	35¼	36¼	35¼	36¼
170	145	7.00	4.8	Do. pref.	41	163	165	162	162
95	75	x6.00	....	C. Ingersoll R.	10	80	80	80	80
11¼	9	.75	....	Can. Int. I. Tr.	1	10¾	10	10	10
66	50¼	5.00	6.3	Can. Iron	25	81	81	81	81
23	14	-	....	Can. Locomo.	125	17	17	17	17
52	21¼	1.05	....	Can. Marconi	11483	5	5¼	5	5¼
15¼	11¼	.50	3.3	Can. Oil	4420	14¼	15¼	14¼	15
101¼	97	5.00	4.9	Do. 5% pref.	35	101	101¾	101¼	101¼
2.70	1.30	-	....	Do. Wts.	2990	2.00	2.70	2.25	2.70
33¾	20¾	*.75	....	Can. Pacific	9268	24¾	24¾	23¾	24
15¾	10	-	....	C. Petrofina pf	9125	14¼	15¼	14¼	15¼
2.15	.55	↑.04	....	Can. Propane	7400	.60	.63	.60	.62
36	27	.60+↑.10	....	Can. Tire	175	33¼	35	33	34
300¾	95	5.00	5.0	C. Utilities pf.	10	99	100	100	100
20¾	14	1.00	4.9	Can. Vickers	5010	19	20¼	19	20¼
12¾	8	↑.37½	....	C. W. Lumber	200	12¼	12	11¾	12
72	55	2.00	3.0	C. Westingh'se	175	67	67	67	67
42	27	1.50	5.4	C. Wire Box A	285	37	42	40	40
23	15	↑1.25	5.4	Canvar Ind.	1408	23	23	23	23
29	18	↑x1.10	....	Capital Estates	20	27	27	27	27
19	13	.50+↑2.00	....	Catelli Food A	300	13¾	13¾	13¾	13¾
73	55½	x6.00	....	Chrysler Corp.	40	55¼	58¼	56¼	58¼
.30	.26	41d	1.7	Cinzano A	920	.30	.26	.26	.26
2	1¼	-	....	Do. 5½% pref	50	2	1¼	1¼	1¼
8	7¼	*.15	....	C. Bar Knit A	5	8¼	8	8	8
4.10	3.50	-	....	Claude Neon A	10	3¾	3¼	3¼	3¼
42	30	-	....	Do. pref.	100	39	41	41	41
4.05	3.15	.24+↑.03	....	Coast Brew.	1700	3.85	4.05	3.90	4.05
6	5	-	....	Cockshutt Farm	2035	8	8¼	8	8¼
4.20	2.50	-	....	Com. Alcohol	1000	3.70	3.75	3.75	3.75
6	5	-	....	Do. pref.	25	5	6	6	6
12¼	7	*.15	....	Conduits Nat.	25	7¾	8	8	8
9¼	7	↑.50	....	Cons. Bakeries	550	7	7	7	7
1.15	.75	-	....	Cons Div Sec A	52	75	75	75	75
27	23	1.50	6.5	Do. pref.	10	23	23	23	23
45¼	34¼	1.50+*.75	....	Cons. Paper	13373	44	45¼	43¼	45¼
21	16	1.00	10.0	Cons. Press A	400	7	6¾	6¼	6¼
3½	2	-	....	Do. (B)	790	2.50	2.60	2.50	2.50
24¼	22	.80+*.20	....	Cons. Smelters	16243	23¼	23¼	22¼	22¼
15¾	5½	-	....	Cons. Textiles	125	7	7	7	7
18	14	.80	4.4	Consumers Gas	5960	17¾	18	17¾	18
26¼	21¾	1.50	5.7	Consum. Glass	1235	25	26¼	25¾	26¼
12¾	8	↑.85	....	Corbys A	1365	11¾	11¾	11	11¼
11¾	8	↑.85	....	Do. (B)	195	10¼	10¾	10¼	10¾
9¼	7	.50	5.5	Corr. P. Box	75	9¼	9	9	9
12¾	9	.70	7.0	Cosmos Imp.	221	9¼	10	9¼	10
14	11¾	.60	4.7	Crain, R. L.	100	12¾	12¾	12¾	12¾
27¼	23	2.00	5.4	Crown Cork	20	37	37	37	37
38	27	x1.80	....	Crown Zeller	2170	38	37¾	37	37¾
7¾	5½	4.00	5.7	Crow's N. Coal	213	6¾	7¼	6¾	7¼
45	38	↑2.50+↑3.00	....	David & Fr A	30	43	43	42	42
16¾	13¾	1.50	10.3	Davis Leath A	540	14¼	14¾	14¼	14¾
3¼	2	-	....	Do. (B)	100	3.00	4.70	4.70	4.70
30¼	24¾	1.20+↑.20	3.5	Distill. Seag.	13380	30¼	30¾	29¾	29¾
33¾	27¼	1.20+↑.10	....	Dom. Bank	410	33¼	33¾	33¼	33¾
85¼	69	1.60+↑1.80	....	Dom. Bridge	1656	82	82¾	80	80¾
13	8	-	....	Dom. Coal, pf.	75	8¼	8¼	8	8¼
13¾	11½	.80	6.3	Dom. Corset	175	13	13	13	13
8.50	4.00	-	....	Dom. Dairies	221	4.60	5.00	5.00	5.00
16	10	-	....	Do. pref.	186	14	17	15	17
26¾	20	.60+↑.60	....	Dom. Engineer	625	24	24¼	23¾	23¾
18¾	12¾	.60	4.3	Dom. Foundry	4001	14¼	14¾	14¼	14¼
100	96¼	4.50	4.8	Do. 4½% pf.	215	99½	100	99½	100
40¾	35¼	.80+*.60	....	Dom. Glass n.	450	40	39¼	38¼	39
16	15¼	.70	4.4	Do. pref.	30	15¾	16	16	16
16	9	-	....	Dom. Magnes.	550	13	13¼	13¼	13¼
25¾	24	1.60+↑.60	....	Dom. Oilcloth	375	30	30¼	30	30
13¾	12¼	↑.65	....	Dom. Scot. Inv	8	13¼	13¼	13¼	13¼
48	43	2.50	4.6	Do. pref.	10	48	46¼	46	46¼
16¾	9½	1.00	10.0	Dom. St. & C.	24912	10¼	10¼	9¾	10
20	14	.60	3.0	Dom. Stores	4940	19¼	20¼	19	20
9	7¼	.40	4.6	Dom. Tar & Ch	3330	8¾	8¾	8¼	8¾
21¼	19¼	1.00	4.7	Do. pref.	385	21	21¼	21	21¼
11	6	*.10	....	Dom. Textile	7475	6¾	6¾	6	6¼
4	2½	-	....	Donnell & M A	50	2.00	2.70	2.70	2.70
17	12¼	1.20	7.1	Donohue Bros.	790	16¾	17	17	17
22¼	15	-	....	Dow Brew	1765	20¼	20¾	20¼	20¾
3	3	-	....	East Koot Pr.	50	3.05	3.05	3.05	3.05
85	58	-	....	Do. pref.	200	85	80	80	80
13¾	7	-	....	Brown Co.	19626	11¼	11¾	11	11¾
98	85	x5.00	....	Do. 1st pref.	630	97¾	97¾	96	96¼
50	46	x3.00	....	Do. 2nd pref.	285	49¾	50	49¾	49¾
19	10¼	-	....	Bruck Mills A.	10	10¼	10¼	10¼	10¼
8¼	4	-	....	Do. (B)	319	4¼	4¼	4¼	4¼
40	34	2.40	6.7	Building Prod.	1697	38¾	39	38¾	38¾
22	19	1.00+↑.50	....	Burlington St'l	50	20	20¼	20¼	20¼
44¾	39¼	2.00+*.50	....	Burns & Co. B	378	41¼	44¼	42	44¼
8¾	6¾	.45	5.9	Burrard DD A	425	7¼	8	7¼	7¾
6¾	5	↑.35	....	Butterfly Hos.	200	5	5¾	5¾	5¾
10½	9½	5.00	4.9	Calgary P. 5%	30	10¼	10¼	10¼	10¼
3¼	2¼	.10	3.3	Canada Bread	100	2.75	2.95	2.95	2.95
98	72	4.00	....	Canada Cement	2175	97	97¾	95¾	96
29¾	26¼	1.00	4.5	Do. pref.	2005	26¼	29¼	26¼	29¼
18¼	15¼	1.00	5.7	C. & D. Sugar	1195	17¾	17¾	17¼	17¾
17¾	13	.60+↑4a4.46	....	Can. Fndis (A)	100	13	13	13	13
100	90	↑1.50+1.40	....	Can. Forg. B	50	90	90	90	90
23	19	1.20	5.6	Can. Iron	1370	21¼	21¾	21	21¼
5¾	3¾	3.00	3.7	Can. Life	315	80	81	79¾	81
9¾	7	.50+↑.25	....	Can. Machine	540	9	9	9	9
85	49	2.00+↑1.00	....	Can. Malting	46	54¼	55	55	55
12¾	10	.60	5.6	Can. Nor. Pr.	160	10¾	11	10¼	10¾
29	23¼	1.50	3.9	Can Packers A	50	37¾	38	37	38
33¾	28½	1.50	4.7	Do. (B)	305	32¼	32¾	32	32
61¼	47	2.60+*.20	....	Can. Perman	120	60¼	61¼	60¼	61¼
102¾	98½	5.00	4.9	Can. Safeway p	55	101	101¼	101	101¼
102¾	98½	5.00	5.0	Do. 2nd pref	5	100¾	100¾	100¼	100¾
97	70	1.00	1.0	Can. Steamsh's	155	96	97	96	96
81	45	2.50	5.0	Do. pref.	880	49¾	50	49¾	50
16¾	12¼	.80+↑.20	....	Can. Vinegars	35	14¼	14	14	14
34¾	28½	1.20	3.5	Can. Bk. Com.	3690	33¾	34¼	33¼	34¾
23	17	1.25	5.4	Can. Breweries	13005	23	23	22¾	23
40	33	1.25+↑1.25	....	Can. Bronze	520	34¼	35	33	33
23¾	23¼	2.00	6.9	Can. Canners	622	29	29¾	28	29
19¾	14¼	.80	4.7	Can. Car & F'y	640	17¼	17¼	17	17
20¾	16¼	1.00	5.1	Do. pref. A	1530	20	19¾	19¼	19¾
46	20	↑2.10	....	Can. Celanese	6720	20¼	21¾	20	21¾
34¾	29	1.75	5.9	Do. pref.	380	29	31	29	29¾
21	15	1.00	5.6	Do. $1 pref.	80	18¼	17¾	17	17¾
9.65	2.20	-	....	Can. Chem.	1750	8¼	8¼	8	8
7	3	-	....	Can. Collieries	46325	5.85	9.65	5.90	9.05
6	3	-	....	Can. Convert A	100	3	3	3	3
25¼	13	-	....	Can. Cottons, p	75	13	15	13	13
37¼	25	1.70	3.1	Can. Dredge	205	55	55	54	54
25¼	21¼	1.00	4.1	Can. Fairb.	700	24	24¼	24	24¼
2	1	-	....	Can. Food Pr.	195	3¼	3¼	3¼	3¼
10	2	-	....	Do. (A)	25	6¼	6	6	6
66	46	4.50	7.3	Do. pref.	25	61¼	62	61¼	61¼
625	410	8.00	*4.00	C. Gen. Elec.	2.545	550	550	550	550
25¾	20	1.10+↑.10	Can. G. Inv.	840	25	25	24	25	
42	31¾	*.40	....	Can. Indust.	1868	35¼	36¼	35¼	36¼
170	145	7.00	4.8	Do. pref.	41	163	165	162	162
95	75	x6.00	....	C. Ingersoll R.	10	80	80	80	80
11¼	9	.75	....	Can. Int. I. Tr.	1	10¾	10	10	10
66	50¼	5.00	6.3	Can. Iron	25	81	81	81	81
23	14	-	....	Can. Locomo.	125	17	17	17	17
52	21¼	1.05	....	Can. Marconi	11483	5	5¼	5	5¼
15¼	11¼	.50	3.3	Can. Oil	4420	14¼	15¼	14¼	15
101¼	97	5.00	4.9	Do. 5% pref.	35	101	101¾	101¼	101¼
2.70	1.30	-	....	Do. Wts.	2990	2.00	2.70	2.25	2.70
33¾	20¾	*.75	....	Can. Pacific	9268	24¾	24¾	23¾	24
15¾	10	-	....	C.

Unlisted Stocks

Compiled by Intercity Securities Corporation Limited, Toronto

February 15, 1954

	Bid	Ask
Algoma Cent. & H. B. Ry.	14.00	19.00
Do. pfd.	1.00	....
Alma Toronto units	43.00	....
Anglo Can. Telephone A	30.75	31.50
Ati Temple Limited	3.75	3.35
Bawes Ltd 1% pfd.	.80	.75
Brinton Peterboro Carpet	47.00	53.00
B. C. Sugar	89.00	92.00
British Mtge. & Trust	205.00	210.00
Brockville Trust & Savings	62.50	65.50
Can. Crushed Stone 6% pfd.	90.00	98.00
Can. Consol. Grain units	80.00	....
Can. Delhi Pete.	11.00	13.00
Can. Foreign Securities	14.00	....
Canadian Gen. Sec. pfd.	.80	....
Can Motor Lamp	18.00	20.00
Can West Nat. Gas pfd.	16.00	17.75
Capital Wire Cloth com.	15.50	20.50
Carlton Club	90.00	98.00
Coleman Collieries A	.13	.16
Do B	.10	.17
Colonial Steamships com.	235.00	260.00
Do. pfd.	70.00	75.00
Commercial Finance Corp.	35.50	37.50
Commercial Life 10% pd.	11.00	....
Concourse Bldg. V.T.	30.00	....
Crown Life Ins.	780.00	....
Debenture & Secs. 5% pfd.	90.00	93.50
Dennis-Steel Corp.	1.75	....
Do 7% pfd.	4.50	....
Detroit Internat. Bridge	26.00	....
Dom. Can. General Insur.	300.00	350.00
Dom. Manufacturers	1.25	....
Do pfd	90.00	....
Dom. Royalty Corp.	.25	.40
Dover Industries	9.50	10.25
Essex Packers com.	1.65	....
Do pfd	30.00	....
Galt Brass	33.50	....
Goderich Elevator & Trans.	21.50	22.50
Granite Club	13.75	14.50
Gt. Britain & Can. Inv.	3.75	4.25
Do. pfd.	106.00	110.00
Great-West Life Assce.	82.00	....
Halifax Insurance	13.50	14.00
Heaps Waterous com.	1.25	2.00
Highland Dairy 5% pfd.	40.00	....
Homewood Sanitarium	....	97.00
Hudson's Bay Co.	13.15	13.85
Industrial Mtge. & Trust	64.00	70.00
Ingram & Bell pfd.	104.00	....
Internat. Holdings com.	12.00	14.00
Jenkins Bros. com.	38.50	....
Ladies Golf & Tennis	15.00	....
Lambton Golf	140.00	160.00
Lambton Loan Sarnia	75.00	80.00
Lawson & Jones 1% pfd.	50	....
Lond. Can. Inv. 5% pfd.	42.00	46.00
Manufacturers Life Ins.	72.00	75.00
Medical Arts Bldg. Toronto	42.50	43.50
Mississauga Golf	15.00	20.00
Monarch Life 40% paid	153.00	158.00
Nat. Sewer Pipe new pfd.	20.00	....
(with bonus common)	....	....
Niagara Lower Arch Bridge	63.00	....
Northern Tel.	1.43	1.60
Para. Oshawa Theatres com.	32.50	....
Park Lawn Cemetery	1.30	1.65
Ponder Oil warr.	.29	.30
Provincial Gas Co.	63.00	....
Prudential Trust	15.00	18.00
Reliance Pet. A & B	20.50	....
Ritchie Cut Stone pfd.	12.00	....
Robin Jones Whitman pfd.	35.00	....
Sawyer Massey com.	12.50	....
Scarboro Golf	12.00	....
Sec. Stand. Royalties pfd.	.04	.05½
Do. B	9.00	....
Steetley Can. com.	3.00	....
Summit Golf	14.00	....
Sun Life Assce.	159.00	....
Toronto Housing	5.25	....
Toronto & London Invest.	2.25	2.50
Union Accept. $1.20 pfd.	20.75	21.75
United Co-op's Ont. pfd.	3.00	....
United Steel 6% pfd.	25.25	26.00
Universal Cooler 8% pfd.	77.00	83.00
Waterloo Manufacturing	2.50	....
Western Assurance com.	99.00	....
York Trading com.	17.00	....

By Rippon & Company Inc., Montreal

Algoma Cen. & Hudson's Bay Ry. com.	14.00	14.75
Beauharnois Lt., Ht. & Pr.	30.00	32.00
Cuban Canadian Sugar	3.00	....
Dupuis Freres pfd.	15.00	17.00
Foreign Power pfd.	26.25	28.00
Guarantee Co. of N.A.	380.00	....
Guardian Realty	2.00	4.00
Hart Battery com.	8.00	10.00
Hudson's Bay Co. (new)	13.00	13.75
London Canadian A	24.0	27.00
Maritime Teleg. & Tele.	15.00	16.00
Montreal City & Dist. Svgs. Bank	43.50	45.00
New Brunswick Tel.	11.75	12.50
S. Nord Chemical Co.	30.00	....
N. S. Light & Power	22.50	24.50
Ont. & Que. Rly. 5% stk.	117.00	122.00
Provincial Bank of Canada	15.50	16.35
Prudential Trust Co.	15.00	18.88
Sherbrooke Trust Co.	140.00	....
Strategic Materials	5.00	6.00
Sun Life Assurance Co.	158.00	162.00

Significant Investors' Index Numbers

No. of Securities	Mach. and equip. 11	Pulp and paper 16	Mill-ing 4	Oils 5	Textiles and cloth-ing 10	Food and allied prod. 14	Bever-ages 10	Bldg. mater. 16	Power and trac-tion 11	Banks 8	Total utili-ties 15	Total co's 105
*1953 to date:												
High	474.1	613.5	155.2	178.6	410.5	132.5	478.9	312.5	130.9	180.7	176.9	188.3
Low	457	51.6	61.2	41.3	78.4	79.5	79.3	68.7	60.2	60.6	62.5	61.1
1953 Monthly Figures:												
Jan.	427.9	502.5	132.6	147.3	279.0	115.2	382.5	293.6	146.3	162.0	167.9	172.3
Feb.	419.9	494.4	132.4	143.0	269.4	117.0	367.0	291.0	146.2	164.8	166.6	169.0
Mar.	415.5	501.9	130.6	145.3	261.5	117.9	366.6	293.8	147.0	165.9	167.7	170.0
Apr.	382.7	472.6	130.4	136.8	247.7	116.2	384.4	282.2	144.8	163.6	161.0	160.8
May	361.6	471.0	128.3	134.6	235.1	116.2	395.0	278.1	143.4	166.3	160.4	159.8
June	378.8	471.9	128.8	127.4	217.6	116.3	368.1	270.7	140.9	168.4	157.5	156.8
July	394.9	494.9	129.8	129.3	202.7	124.3	406.6	278.5	141.9	169.1	157.9	160.7
Aug.	396.9	519.9	130.4	131.2	211.3	125.7	411.4	283.0	142.9	171.7	154.6	161.2
Sept.	375.2	500.2	132.5	130.1	199.4	123.2	397.6	269.4	141.5	171.6	148.1	152.9
Oct.	374.5	503.3	131.9	118.3	189.9	123.3	400.8	267.0	142.9	168.5	149.0	151.9
Nov.	398.7	525.9	131.0	117.6	178.3	134.6	417.9	272.6	146.1	173.4	149.4	154.2
Dec.	391.3	544.4	129.1	119.4	180.7	122.4	420.4	276.1	131.4	180.2	146.4	153.6
1954 Weekly Figures:												
Jan. 7	398.9	562.0	129.6	122.2	179.7	123.0	423.6	278.2	130.3	184.1	147.4	155.7
Jan. 14	399.9	564.1	128.9	123.4	179.2	122.2	427.4	277.4	132.8	185.8	147.5	155.5
Jan. 21	396.7	560.3	128.6	127.3	177.6	123.4	444.5	287.5	132.1	186.9	149.3	158.0
Jan. 28	403.9	575.8	129.9	131.4	181.5	125.1	442.4	291.0	130.6	189.1	152.3	160.4
Feb. 4	409.3	584.5	129.9	129.9	183.6	123.2	448.6	290.7	133.7	188.8	152.3	161.4
Feb. 11	428.8	607.9	130.6	142.1	188.7	125.3	449.8	290.7	136.0	190.7	155.1	165.7

*High and low for year from 1938 to date inclusive are based on weekly figures issued by the Dominion Bureau of Statistics.

Toronto Stock Exchange Index

	20 Indus.	20 Golds	15 B.M.	15 W.O.
Feb. 18	326.56	74.63	139.99	94.07
Feb. 13	327.36	74.36	140.70	93.37
Feb. 11	327.36	74.19	140.83	93.31
Feb. 10	328.35	74.21	140.99	93.04
Feb. 9	327.77	72.73	139.36	93.52
Month Ago	319.13	71.53	141.37	91.13
Year Ago	318.50	82.10	173.73	121.77
1953-54 High	329.35	87.01	185.60	138.51
1953-54 Low	296.79	66.01	137.81	82.78

Montreal Stock Exchange Index

	10 Util.	20 Ind.	30 Com.	10 Fprs.	15 Golds
Feb. 13	97.3	185.3	156.6	228.11	85.14
Feb. 12	97.7	187.3	157.4	231.79	84.31
Feb. 11	97.6	187.0	157.2	230.10	83.27
Feb. 10	97.1	186.0	157.7	230.13	83.61
Feb. 9	97.0	187.1	157.0	229.66	83.20
Month Ago	94.4	185.1	154.9	785.35	81.12
Year Ago	94.5	203.6	167.2	691.80	64.07
'53-'54 High	97.7	212.5	173.0	834.17	86.32
'53-'54 Low	91.1	174.6	147.2	539.76	48.49

Dow-Jones Closing Stock Averages

	30 Indus.	20 Rails	15 Util.	65 Stocks
Feb. 18	292.55	105.31	54.93	111.97
Feb. 12	293.39	105.49	54.56	112.32
Feb. 11	292.43	105.21	54.52	111.90
Feb. 10	292.92	105.09	54.47	111.88
Feb. 9	292.79	105.62	54.41	111.94
Month Ago	286.03	96.07	53.74	108.72
Year Ago	283.18	108.11	52.70	110.63
1953-54 High	293.39	112.21	54.98	114.98
1953-54 Low	255.49	90.54	47.67	96.24

Government Bonds

Feb. 16, 1954 (Supplied by Investment Dealers' Assoc. of Canada)

%	Due	Bid	Ask
Victory Loans:			
3	Mar. 1954	100⅞	101⅛
3	Nov. 1956	100¼	101
3	May 1957	99⅛	100
3	Jan. 1959	98⅛	99⅛
3	June 1960	97⅛	98⅛
3	Feb. 1962	97⅛	98⅛
3	Oct. 1962	97	98
3	Sept. 1963	96⅛	96⅞
Dom. of Can. Bonds:			
3	June 1938	99⅛	99½
3½	June 1956	98⅛	98½
3	Perpetual	87⅛	88⅛
2½	June 1960	91	92
2½	Jan. 1975-78	101	102
Can. Nat. W. Ind. S.S.:			
3	Mar. 1956	●101¼	102½
Grand Trunk Pacific Rly.:			
3	Jan. 1962	●98	99
4	Jan. 1962	●103½	105½
Dom. Guaranteed Bonds			
Can. Nat. Railways:			
3	Jan. 1959	97⅛	98
4½	Feb. 1956	●102	103½
5	Feb. 1954	100	100½
4½	June 1955	●101⅜	102½
2½	Jan. 1967	91⅛	92⅛
2½	Sept. 1969	84	85
3	Jan. 1966	94	95
4½	July 1957	103½	105½

●Payable Can. or N.Y. †Callable on or after Sept. 15, 1955.

Provincial Bonds

%	Due	Bid	Ask
Prov. Govt. Bonds			
Alberta:			
3½	Mar. 1970	●92	94
British Columbia:			
4½	Jan. 1959	●107	108½
3	Dec. 1960	94	96
3	June 1964	91	93
5	Sept. 1959	107	108
B. C. Power Comm.:			
3	Oct. 1967	89	91
Manitoba:			
4	Dec. 1957	●101⅛	102⅛
5	Dec. 1959	●106¼	108¼
5½	July 1958	104	106
3	Oct. 1965	89	91
4½	Dec. 1956	●102⅛	103⅛
New Brunswick:			
4½	Apr. 1961	●103	104
2½	June 1966	85	87
3½	May 1957	96⅛	98
3½	Sept. 1965	92	93½
Nova Scotia:			
4	Nov. 1960	●103	105
5	Mar. 1960	●105	107
5	Dec. 1959	●107	109
3½	June 1967-68	92⅛	93½
3	Mar. 1963	90⅛	92⅛
3½	Nov. 1960-62	93½	94½
3½	Oct. 1962-63	96⅛	96½
Newfoundland:			
4½	July 1964	102	104

●Payable Can., N.Y. or £.

Municipal Bonds

February 16, 1954

	Coup.	Matur.	Bid %	Ask.	Yld %
Calgary	3½	'69	86½	88½	4.50
Edmonton	3½	'69	86½	88½	4.60
Halifax	3½	'66	89	91	4.45
Hamilton	3	'67	84¼	86¼	4.15
Montreal	3	'70	82½	85	4.20
Moose Jaw	3½	'69	92½	94½	4.00
Ottawa	3½	'69	90	92	4.00
Regina	3	'64	84½	86¼	4.60
St. John	3½	'63	88½	90½	4.60
Toronto	3	'68	84½	86½	4.20
Vancouver	3¼	'69	89½	91½	4.50
Victoria	3½	'68	88½	90½	4.60
Windsor	3¼	'75	69½	72½	4.75
Windsor	2½	'75	66½	69½	4.75
Windsor	3½	'75	79½	83	4.75
Winnipeg	3	'69	84½	86¼	4.15

Investment Trusts

	Divd. pd.a cents	Bid $	Ask $
Affiliated Funds	.....	5.06	5.47
Balanced Mut.	(1.13)	3.86	4.24
Can. Invest. Fund	7(28)	6.16	6.76
CansFund	(110)	24.19	25.96
Com'wealth Int.	10(23)‡	5.09	5.59
Corporate Inv.	7(25)	5.82	6.32
Diversified Inc. shs. B	(11)	2.35	2.55
Dom. Equity Inv.	(38)	10.75	10.99
Grouped Inc.	(19.1)	4.86	5.31
Int. Investors	.....	10.51	11.55
Investors Mut.	(28.5)	6.66	7.26
Leverage Fund	(21)	3.72	4.09
Mut. Ac. F.	(20.66)	3.89	4.22
Mutual Income	4.19(20.91)	3.53	3.84
Resources of C.	6(30)	5.03	5.53
Timed Invest.	25‡39	14.50	*4.50
Trans-Can. A	(77)	18.20	....
Do. B	(81)	18.15 ex div.	
Do. C	(17.2)	3.75	4.05

(Less or (*) plus stock exchange commission.
▲Paid or payable in 1954; total paid in 1953 in brackets.

Dividends Declared

	This payment $	Date payable	Date of record
Abitibi Pwr. & Pap.	.30	Apr. 1	Mar. 1
Do. $1.50 pf.	.37½	Apr. 1	Mar. 1
Acadia-Atlantic	.12½	Apr. 1	Mar. 15
Do. A	.20	Apr. 1	Mar. 15
Do. pfd 5%	1.25	Mar. 15	Feb. 26
Agnew-Surpass	.10	Mar. 1	Jan. 29
Aluminium Ltd.	1.50	Mar. 5	Jan. 29
Aluminium 4% pf.	.25	Mar. 1	Feb. 5
Do. 5½% pf.	1.31	Mar. 1	Feb. 5
Anglo-Can. Tel. A	.15	Mar. 1	Feb. 10
Argus Corp.	.15	Mar. 1	Jan. 29
Do. 4½% pf.	1.12½	Mar. 1	Jan. 29
J. H. Ashdown Hdwre. A	.15	Apr. 1	Mar. 10
Do. B	.25	Apr. 1	Mar. 10
Aunor G. M.	.04	Mar. 1	Feb. 12
Auto Elec. Serv.	.15	Mar. 15	Feb. 19
Do. A	.12½	Mar. 15	Feb. 19
Bank of Montreal	.50	Mar. 1	Jan. 20
Bk. of Toronto	.35	Mar. 1	Feb. 15
Banque Canadn. Nat.	.25	Mar. 1	Feb. 15
Banque D'Economie	.25	Mar. 1	Feb. 15
Barber-Ellis	.50	Mar. 15	Mar. 1
Barymin Co. Ltd.	.03	Feb. 10	Feb. 1
Bathurst Pr & P. A	.75	Mar. 1	Feb. 1
Do. B	.75	Mar. 1	Feb. 1
Beaver Lumber pfd.	.35	Apr. 1	Mar. 10
Do. A	.25	Apr. 1	Mar. 10
Beld.-Cort	.15	Apr. 1	Feb. 26
Do. 7% pf.	.17½	Apr. 1	Feb. 26
Belleterre Que. M.	.05	Mar. 15	Feb. 15
Bird Construction	.50	Mar. 31	Mar. 15
Do	.50	June 30	June 15
Do.	.50	Sep. 30	Sep. 15
Do.	.50	Dec. 31	Dec. 15
Brantford Cord. A	.25	Mar. 1	Feb. 4
Braz. Tractn. ord. stk.	03½c	Feb. 23	Jan. 7
T. G. Bright 5% pf.	3½	Mar. 31	Mar. 15
Br. Am. Bk. Note	.25	Mar. 15	Mar. 1
Br. Amer. Oil	.17½	Apr. 1	Mar. 1
B. C. Packers A	.37½	Mar. 15	Feb. 27
Brown Co. 1st pf.	1.25	Mar. 1	Feb. 19
Do. 2nd pfd.	1.75	Mar. 1	Feb. 19
Bulolo Gold	▲▲1.89	Mar. 11	Feb. 11
Burns & Co. A	.50	Apr. 29	Apr. 8
Do.	.50	July 29	July 8
Do.	.50	Oct. 29	Oct. 8
Do.	.50	Apr. 29	Apr. 8
Do.	.50	July 29	July 8
Do.	.50	Oct. 29	Oct. 8
Burrard D.D. A	.15	Mar. 15	Feb. 26
Butterfly Hose	.10	Mar. 15	Feb. 22
Cal. & Ed. Corp.	.05	Apr. 15	Mar. 12
Can. Cement pfd.	.32½	Mar. 20	Feb. 20
Can. & Dom. Sugar	.25	Mar. 1	Feb. 10
Can. Iron F'dries	.30	Apr. 1	Mar. 10
Can. Life Assur.	.75	Apr. 1	Mar. 15
Can. Malting	.50	Mar. 15	Feb. 15
			Coup. 105
Can. Packers A	.75	Apr. 1	Feb. 26
Do B	.75	Apr. 1	Feb. 26
Can. Perm. Mtge.	.65+1.30	Apr. 1	Mar. 15
Can. Safeway 5% 1st pf.	1.25	Mar. 1	Feb. 1
Do 5% 2nd pf.	1.25	Mar. 1	Feb. 1
Can. Vinegars Ltd.	.20	Mar. 1	Feb. 15
Canda Brew	.25	Apr. 1	Feb. 26
Canda. Car & Fdry.	.20	Feb. 22	Feb. 2
Do. A	.25	Feb. 22	Feb. 2
Cdn. Fairbanks	.25	Mar. 1	Feb. 15
Can. Food Prod. 4½% pf.	1.12½	Apr. 1	Feb. 26
Canda. Gen. Elec.	2.00	Apr. 1	Mar. 15
Can. Gen. Invest.	.27½+2.18	Apr. 15	Mar. 31
Can. Ice Mach.	.10	Apr. 1	Mar. 17
Do A	.20	Apr. 1	Mar. 17
Can. Ind.	.50	Apr. 30	Mar. 31
Do. 7% pfd.	1.75	Apr. 15	Mar. 15
Can. Pac. Rlwy.	.75	Feb. 28	Dec. 30
Can. Tire Corp.	.15	Mar. 1	Feb. 20
Do pfd.	.50	Mar. 1	Feb. 20
Cdn. West. Nat. Gas pf	.20	Mar. 1	Feb. 16
Catelli Food A	.13	Feb. 27	Feb. 15
Do. B	.25	Feb. 27	Feb. 15
Chrysler Corp.	††1.50	Mar. 12	Feb. 23
Cockshutt Farm E.	.10	Mar. 1	Feb. 15
Commnl Ltd.	.20	Feb. 26	Feb. 12
Confederation Life	.37	Mar. 15	Mar. 10
Do	.38	Jun. 15	Jun. 10
Do	.37	Sep. 15	Sep. 10
Do	.38	Dec. 15	Dec. 10
Cons. Theatres A	.13	Mar.	Feb. 1
Consumers Glass	.37½	Feb. 26	Jan. 29
Cont. Can	††.60	Mar. 15	Feb. 25
Do $3.75 pf.	1.93¾	Apr. 1	Mar. 15
Do. $4.25 2nd pf.	††1.06¼	Apr. 1	Mar. 15
Corr. Paper Box	.12½	Mar. 1	Feb. 12
Do. 5% pf.	1.25	Mar. 1	Feb. 12
Crown-Zeller pf.	††1.05	Mar. 1	Feb. 12
Davis Leather A	.37½	Mar. 1	Feb. 15
Distillers Corp.-Seag.	.30	Mar. 15	Feb. 25
Dom. & Anglo Inv. pf.	1.23	Mar. 1	Feb. 15
Dom. Bridge	.40+$1.80	Feb. 23	Jan. 29
Dom. Corset	.20	Apr. 1	Mar. 15
Dom. Scot. Inv. 3% pf.	.62½	Mar. 1	Feb. 18
Dom. Stores	.15	Mar. 15	Feb. 17
Dom. Struct. Steel	.10	Mar. 15	Feb. 15
Dom. Tar & Chem.	.10	May 1	Apr. 1
Do pfd.	.25	Apr. 1	Mar. 1
Donohue Bros.	.90	Mar. 1	Feb. 15
Dover Ind.	.15	Mar. 1	Feb. 15
East Sullivan M.	.15	Apr. 15	Mar. 15
Eastern Theat.	.02	Feb. 27	Feb. 19
Easy Washing	.05+1.05	Apr. 1	Mar. 15
Eddy Paper A	.25	Mar. 15	Feb. 15
Electrofax	▲.25	Mar. 15	Feb. 15
Emp. Life Ins. 100% pd.	.60	Mar. 1	Feb. 1
Equitable Life Ins.	.65	Feb. 19	Feb. 12
Fanny Farmer	††.37½	Mar. 31	Mar. 19
Ford Motor A & B	.75+$1.25	Mar. 15	Feb. 5
Fraser Co's	.23	Apr. 19	Apr. 2
Do. 4½% pf.	1.18	Apr. 1	Mar. 12
Gen. Dynamics	▲.75	Mar. 10	Feb. 11
Gen Motors	††1.00	Mar. 10	Feb. 11
Gen'ton & Co. A	.25	Mar. 15	Feb. 25
Do	.25	Jun. 15	May 25
Do	.25	Sep. 15	Aug. 25
Do	.25	Dec. 15	Nov. 25
Gt. Lakes Pr. Corp. 5½ pf.	.31¼	Mar. 30	Mar. 1
Gulf Oil Corp.	▲.30	Mar. 10	Feb. 5
Gypsum, Lime	.50	Mar. 1	Feb. 1
Do.	.50	June 1	May 3
Hallnor M.	.05	Mar. 1	Feb. 16
Ham Cotton	.35	Mar. 1	Feb. 10
Do 5% pf.	1.25	May 15	May 5
Howe Sound	1.10	Mar. 10	Feb. 26
Hudson Bay M. & S.	1.00	Mar. 8	Feb. 8
Imp. Varnish	.20	Mar. 1	Feb. 16
Do. $1.30 pf.	.32½	Mar. 1	Feb. 16
Int. Nickel	▲.50	Mar. 25	Feb. 16
Int. Paper	▲1.75	Mar. 15	Feb. 19
Do. pfd.	††1.00	Mar. 15	Feb. 19
Int. Pet.	1.25	Mar. 12	Feb. 19

Dividends Declared (Con'd.)

Int. Utilities	††.35	May 1	Apr. 14
Interprov. Bldg. Credits Ltd.	.12½+1.23	Mar. 1	Feb. 15
Interprov. Pipe Line	.15	Mar. 1	Feb. 12
Invest. Found.	.75	Apr. 15	Mar. 15
Do. 6% pfd.	.75	Apr. 15	Mar. 15
Island Fug & Barge pf.	.25+1.25	Mar. 1	Feb. 15
Kelvinator	.37½	Mar. 20	Mar. 5
Kerr-Addison G. M.	.20	Mar. 26	Feb. 26
Lake of Wood Mill.	.40	Mar. 1	Feb. 1
Do. 7% pf.	1.75	Mar. 1	Feb. 1
Laura Secord	.20	Mar. 1	Feb. 1
Lawson & Jones A semi. div.	.02½	Apr. 1	Mar. 15
Loblaw Groc. A & B	.37½	Mar. 1	Feb. 3
Loblaw Inc.	▲.25	Feb. 27	Feb. 12
Loumaury A	.12½+1.20	Mar. 1	Feb. 10
Do. B	.12½+1.20	Mar. 1	Feb. 10
MacKinnon Struct. Steel pf	1.25	Mar. 15	Feb. 27
Maclaren Pwr. & P.	.50	Mar. 29	Feb. 15
Man. Sug. 6% pf.	6.00	Apr. 1	Mar. 15
Maritime Tr. 6½% pfd	4%	Mar. 1	Jan. 2
Massey-Harris-Ferg.	.15	Mar. 15	Feb. 19
McColl-Front.	.25	Feb. 26	Jan. 30
McIntyre-Porc	.50	Mar. 1	Feb. 1
Minn. & Ont. Pap.	▲.50	Apr. 30	Apr. 2
Robt. Mitchell	††.75	Apr. 15	Mar. 31
Do.	††.75	Jun. 15	May 15
Do.	††.75	Sep. 15	Aug. 14
Do.	††.75	Dec. 15	Nov. 15
Mod. Containers A	.25	Apr. 2	Mar. 19
H. Morgan 4½% pf.	1.19	Mar. 1	Feb. 5
Do 5% pf.	1.25	Mar. 1	Feb. 5
Nat. Drug	.12½	Mar. 1	Feb. 8
Do pfd	.15	Mar. 1	Feb. 8
Nat. Grocers	.15	Apr. 1	Mar. 10
Do. $1.50 pfd.	.37½	Apr. 1	Mar. 10
Nat. Lead 7% of.	▲1.75	Mar. 15	Feb. 19
Nat. Sea Prod. 5% pf.	2.50	Mar. 1	Feb. 15
Nfld. Lt. & Pwr.	.30	Mar. 1	Feb. 10
Do. 5% pf.	1.25	Mar. 1	Feb. 10
Normetal Min.	.05	Mar. 31	Mar. 1
Niagara W. W.	.50	Apr. 1	Mar. 4
Noranda Mines	.75	Mar. 15	Feb. 16
Nor. Que. Pr. 5% pf.	1.25	Mar. 1	Feb. 29
N. S. Lt. & Pwr. 4% pf.	1.00	Mar. 1	Feb. 4
Do. 4½% pfd.	1.12	Mar. 1	Feb. 4
Do. 6% pfd.	1.50	Mar. 1	Feb. 4
O'Brien C. M.	.02	Mar. 10	Feb. 5
Ogilvie Flour Mills	.25	Apr. 1	Feb. 24
Do 7% pf	1.75	Mar. 1	Feb. 1
Okanagan Tel.	.20	Mar. 1	Feb. 10
Do pfd	.20	Mar. 1	Feb. 10
Paton Mfg.	.20	Mar. 15	Feb. 27
Do. 7% pfd.	.35	Mar. 15	Feb. 27
Photo Engravers	1.00	Mar. 1	Feb. 15
Powell Riv. Co.	.25	Mar. 15	Feb. 15
Premier Trust	1.00	Apr. 1	Mar. 19
Pressed Metals	.25	Mar. 1	Feb. 10
Provincial Bk.	.16	Mar. 1	Feb. 15
Provincial Trans.	.25	Feb. 22	Feb. 8
Que. Power	.30	Feb. 25	Jan. 15
Robinson Little A	.25	Mar. 1	Feb 15
Rolland Pap.	.25	Mar. 1	Feb. 15
Do 4½% pf.	1.06¼	Mar. 15	Mar. 1
Royal Bank	.35	Mar. 1	Jan. 30
Royalite Oil	.06¼	Mar. 1	Feb. 12
Saguenay Pwr. 4½% pf.	1.06	Apr. 1	Mar. 5
Sarnia Bridge	.20	Mar. 15	Feb. 27
Scythes & Co.	.25	Mar. 1	Feb. 12
Do 5% pf.	.31¼	Mar. 1	Feb. 12
Shaw. W. & P.	.30	Feb. 25	Jan. 15
Do. 4% ser. A pf.	.50	Apr. 2	Mar. 2
Do 4½ ser. B pf.	.56¼	Apr. 2	Mar. 2
Shaw W. & P.	.30	Feb. 25	Jan. 15
Sher-Williams	.35	May 1	Apr. 9
Do pfd. 7%	1.75	Apr. 1	Mar. 10
Silverwood Dair. A	.15	Apr. 1	Feb. 26
Do. B	.10	Apr. 1	Feb. 26
H. Simon 5% pf.	1.25	Mar. 1	Feb. 12
Simpsons Ltd.	.12½	Mar. 15	Feb. 19
Sta. Amer. Gold	.10	Mar. 12	Feb. 24
Stand. Brands Inc.	▲.30	Mar. 15	Feb. 15
Stand Oil	††1.00	Mar. 11	Feb. 8
St

DIVIDEND NOTICES

BANK OF MONTREAL
ESTABLISHED 1817
DIVIDEND NO. 368

NOTICE is hereby given that a DIVIDEND of THIRTY CENTS per share upon the paid-up Capital Stock of this Institution has been declared for the current quarter, payable on and after MONDAY, the FIRST day of MARCH next, to Shareholders of record at close of business on 30th JANUARY 1954.

By Order of the Board.

ARTHUR C. JENSEN,
General Manager.

Montreal, 19th January, 1954.

THE BANK OF TORONTO
DIVIDEND NO. 290

Notice is hereby given that a Dividend of **Thirty-Five Cents** per share on the Paid-Up Capital Stock of this Bank has been declared for the current quarter, payable at the Head Office of the Bank and its Branches on and after the first day of March next, to shareholders of record at the close of business on February 15th, 1954.

By Order of the Board.

WM. KERR,
General Manager.

January 26th, 1954.

CANADA PERMANENT MORTGAGE CORPORATION

NOTICE is hereby given that a Dividend of Sixty-five Cents per share on the paid-up Capital Stock of the Corporation for the current quarter, and an extra dividend of Twenty Cents per share have been declared, and that both Dividends will be payable Thursday, the First day of April next, to Shareholders of record at the close of business on the Fifteenth day of March 1954.

By Order of the Board.

J. W. ROSE, JR.,
Secretary.

Toronto, January 13th, 1954.

BUTTERFLY HOSIERY CO. LTD.
NOTICE OF DIVIDEND

THAT quarterly dividend number 52 of ten cents per share on the common stock of the Company has been declared payable on the 15th day of March, 1954 to shareholders of record as at the close of business February 22nd, 1954.

By Order of the Board.

W. V. HOLTON,
Secretary.

February 11th, 1954.

THE CALGARY & EDMONTON CORPORATION LIMITED

NOTICE is hereby given that a dividend of five cents per share was declared on the 5th day of February, 1954, payable on the 15th day of April, 1954, to shareholders of record at the close of business on the 12th day of March, 1954.

By Order of the Board.

CHAS. E. REECE,
Secretary.

DATED at Winnipeg, Manitoba, this 5th day of February, 1954.

D. A. STUART OIL CO. LIMITED
DIVIDEND NO. 3

Notice is hereby given that a quarterly dividend of Twenty (20c) Cents per share has been declared on the outstanding capital stock of this company and will be paid in Canadian funds on March 1st, 1954, to shareholders of record at the close of business February 19th, 1954.

By Order of the Board.

H. W. SALTHOUSE,
Assistant Secretary-Treasurer.

Toronto, Ontario,
February 11th, 1954.

AUNOR GOLD MINES LIMITED
DIVIDEND NOTICE

NOTICE is hereby given than an interim dividend of Four cents (4c) per share, has been declared by the Directors of Aunor Gold Mines Limited, payable March 1st, 1954, to Shareholders of record February 12th, 1954.

By Order of the Board.

C. H. WINDELER,
Secretary.

Toronto, Ontario,
February 5th, 1954.

MACASSA MINES LIMITED
(No Personal Liability)
DIVIDEND NO. 67

NOTICE is hereby given that a quarterly dividend of two (2c) cents per share has been declared on the issued capital stock of this company and will be paid in Canadian funds on March 15th, 1954, to shareholders of record at the close of business February 20th, 1954.

By Order of the Board.

H. W. SALTHOUSE,
Secretary.

Toronto, Ont., February 13, 1954.

MACASSA MINES LIMITED
(No Personal Liability)
NOTICE OF ISSUE OF RIGHTS TO SUBSCRIBE FOR SHARES OF
CROFT URANIUM MINES LIMITED
(No Personal Liability)

NOTICE IS HEREBY GIVEN that rights have been declared to shareholders of Macassa Mines Limited of record the 20th day of February, 1954, to subscribe for one (1) share of the common capital stock of Croft Uranium Mines Limited of the par value of $1.00 fully paid and non-assessable at the price of fifty cents (50c) per share for each five (5) shares of Macassa Mines Limited held as of the record date.

Subscription warrants evidencing the right to subscribe will be mailed to shareholders by the company's transfer agent, Crown Trust Company, as soon as may be possible after the said record date. The subscription Rights will expire on the 19th of March, 1954, and thereafter will be null and void.

Payment in full of the shares subscribed for pursuant to the term of the subscription warrant must be made to Crown Trust Company, 302 Bay Street, Toronto, Ontario, on or before the expiry date of the Rights, March 19th, 1954.

By Order of the Board.

H. W. SALTHOUSE,
Secretary-Treasurer.

DATED at Toronto, this 15th day of February, 1954.

UNITED KENO HILL MINES LIMITED
NOTICE OF INTERIM DIVIDEND

Notice is hereby given that an interim dividend of Four Cents (4c) share has been declared on the issued capital stock of the company, payable in Canadian funds on Wednesday, March 31, 1954, to shareholders of record at the close of business on Monday, March 15, 1954.

By Order of the Board.

C. R. ELLIOTT,
Secretary-Treasurer.

Toronto, Ontario.
January 21st, 1954.

HALLNOR MINES, LIMITED
(No Personal Liability)
DIVIDEND NOTICE

NOTICE is hereby given that an interim Dividend of Five Cents (5c) per share, has been declared by the Directors of Hallnor Mines, Limited (No Personal Liability) payable March 1st, 1954, to Shareholders of record at the close of business February 16th, 1954.

By Order of the Board.

C. H. WINDELER,
Secretary.

Toronto, Ontario,
February 10, 1954.

NORANDA MINES, LIMITED
DIVIDEND NOTICE

NOTICE is hereby given that an interim dividend of Seventy-five Cents (75c) per share, Canadian Funds, has been declared by the Directors of Noranda Mines, Limited, payable March 15th to Shareholders of record February 16th, 1954.

By Order of the Board,

C. H. WINDELER,
Secretary.

TORONTO, Ontario,
February 10th, 1954.

LOWER ST. LAWRENCE POWER COMPANY
DIVIDEND NOTICE

A quarterly dividend of 25c per share on the 5% Cumulative Sinking Fund Redeemable Preferred Shares has been declared, payable April 1st, 1954, to Shareholders of record at the close of business, on March 1st, 1954.

By order of the Board.

P.-E. GAGNON,
Secretary.

RIMOUSKI, Que.,
February 13th, 1954.

INGRAM & BELL LIMITED
PREFERENCE DIVIDEND NO. 13

Notice is hereby given that the annual dividend of $3.00 per share for the fiscal year ending February 28, 1954, has been declared on the outstanding 6% cumulative preference shares of the Company, payable on March 15, 1954, to shareholders of record at the close of business on February 26th, 1954.

By Order of the Board.

W. F. JONES,
Secretary.

Toronto, February 15, 1954.

QUEBEC TELEPHONE CORPORATION
DIVIDEND NOTICE

THE following dividends have been declared, payable April 1st, 1954, to Shareholders of record at the close of business on March 1st, 1954.

25c per share, regular quarterly dividend on the 5% Cumulative Sinking Fund Redeemable Preferred Shares

35c per share, semi-annual dividend on the Class "A" Shares

20c per share, on the $5.00 par value Common Stock.

By Order of the Board.

P.-F. GAGNON,
Secretary.

Rimouski, Que.,
February 13th, 1954.

CANADIAN GENERAL ELECTRIC COMPANY, LIMITED
DIVIDEND NOTICE

NOTICE is hereby given that a dividend of two dollars per share for the quarter ending March 31, 1954, has been declared on the Common Stock of the Company.

The above dividend is payable April 1, 1954, to shareholders of record at the close of business March 15, 1954.

By Order of the Board.

W. H. NESBITT,
Secretary.

Toronto, February 10, 1954.

DOMINION CORSET COMPANY LIMITED
DIVIDEND NOTICE

Notice is hereby given that a dividend of twenty cents (20c) per Share has been declared for the quarter ending March 31, 1954, on the outstanding Common Stock of this Company, payable April 1, 1954, to Shareholders of record March 15, 1954.

By Order of the Board,

MAURICE GODBOUT, C.A.,
Secretary-Treasurer.

Belding-Corticelli Limited
Notice of Preferred Stock Dividend No. 157

A dividend of one and three-quarters per cent (1¾%) has been declared on the Preferred Stock of this Company, for quarter ending 28th February, 1954.

Notice of Common Stock Dividend No. 112

A dividend of fifteen cents (15c) has been declared on the Common Stock of this Company, for quarter ending 28th February, 1954.

The above dividends are payable on the 1st day of April, 1954, to shareholders of record at the close of business the 26th day of February, 1954.

By Order of the Board,

D. F. POLLOCK,
Secretary.

POWELL RIVER COMPANY LIMITED
NOTICE OF DIVIDEND NO. 37A

At a meeting of the Board of Directors held on the 5th February, 1954, a quarterly dividend of twenty-five cents (25c) per share was declared payable on the issued shares of the Company in Canadian Funds on the 15th March, 1954, to shareholders of record as of the 15th February, 1954, and to holders of share warrants.

Said dividend will be paid at par in respect of the shares specified in any bearer share warrant of the Company upon presentation and delivery of Coupon No. 37A, on or after 15th March, 1954, at any branch of the Bank of Montreal in Canada (far northern points excepted) or at the offices of Agency, Bank of Montreal, New York, or Bank of Montreal (San Francisco), San Francisco, or at the First National Bank of Chicago, Chicago, Ill.

By Order of the Board.

JAMES H. LAWSON,
Secretary.

Vancouver 2, B.C.,
February 5, 1954.

RENABIE MINES LIMITED
(No Personal Liability)
DIVIDEND NO. 1

Notice is hereby given that an interim dividend of five (5c) cents per share has been declared on the issued capital stock of this company and will be paid in Canadian funds on March 15th, 1954, to shareholders of record at the close of business February 27th, 1954.

By Order of the Board.

H. W. SALTHOUSE,
Secretary.

Toronto, Ontario
February 15, 1954.

DELNITE MINES, LIMITED
(No Personal Liability)

TO SHAREHOLDERS AND HOLDERS OF SHARE WARRANTS:

NOTICE OF DIVIDEND NO. 17

TAKE NOTICE that a semi-annual dividend (interim) of 2% (i.e. two cents per share) on the outstanding Capital Stock of the Company, payable in Canadian funds, has been declared as dividend No. 17.

Such dividend will be payable April 1st, 1954, to shareholders of record at the close of business February 26th, 1954.

In the case of Share Warrants such dividend will be payable on or after April 1st, 1954, in respect of the shares specified therein, upon presentation and delivery of Coupon No. 17 (accompanied by requisite evidence that the coupon holder is domiciled and resident outside of Ontario) at:

The Canadian Bank of Commerce, Toronto Branch, Toronto, Ontario,
or,
Liberty Bank of Buffalo, Buffalo, N.Y.

By Order of the Board.

W. S. WALTON,
Secretary.

February 15th, 1954.

THE CORRUGATED PAPER BOX COMPANY, LIMITED
DIVIDEND NOTICE

Notice is hereby given that a dividend of $1.25 per share on the outstanding preference stock of the Company and quarterly dividend (No. 29) of twelve and one-half cents (12½c) per share on the outstanding common stock of the Company have been declared payable March 1st, 1954, to shareholders of record at the close of business on February 12th, 1954.

Dated at Leaside, this 8th day of February, 1954.

E. R. BLUETHNER,
Secretary.

THE BRITISH AMERICAN OIL COMPANY LIMITED
DIVIDEND NOTICE

NOTICE is hereby given that a dividend of seventeen and one-half cents (17½c) per share has been declared on the issued No Par Value Common Stock of the Company for the first quarter ending March 31st, 1954. The above dividend is payable in Canadian Funds, April 1st, 1954, to shareholders of record at the close of business on the 1st day of March, 1954.

R. DONELLAN,
Secretary.

DATED at Toronto, February 12th, 1954.

Abitibi
DIVIDEND NOTICE

Notice is hereby given that dividends, in the respective amounts per share set out below, have been declared payable April 1, 1954, to shareholders of record at the close of business, March 1, 1954, on the following outstanding shares of ABITIBI POWER & PAPER COMPANY, LIMITED:

Preferred 37½c per share
Common 30c per share

By Order of the Board,
L. B. POPHAM, Secretary.
TORONTO, February 11, 1954

ROYALITE OIL COMPANY Limited
NOTICE OF DIVIDEND NO. 61

NOTICE is hereby given that a Dividend of Six and one-half cents per share has been declared payable to shareholders of the Company of record as such on the books of the Company at the close of business on Friday, the 12th day of February, 1954, and that the said Dividend will be payable on or after Monday, 1st day of March, 1954.

By Order of the Board.

"R. D. MERCER,"
Secretary Treasurer.

Calgary, Alberta,
January 25, 1954.

Soul-Searching Follows Rail Report

9% Rail Hike, Rate of Return Basis Refused by Board

MONTREAL (Staff) — Executives in charge of allocating Canadian railway revenues were this week taking a careful second look at upcoming rail expenses.

Meanwhile, railway union leaders pondered over the possible refusal of some of their future wage increase demands.

Both groups were carefully thumbing through the 115-page Board of Transport Commissioners judgment which has prompted all the soul-searching. In it, the rails' request for a 9% freight rate hike now—and possibly others later, depending on costs—was in effect turned down.

The 40,000-word report is one of the most important descriptions of the basic principles behind the setting of freight rates in Canada ever published.

For the companies, the turndown of the requested guaranteed yield on investments, means a definite break in the long-accepted postwar pattern of covering skyrocketing labor demands and climbing general operating costs through freight rate increases.

For the labor bargaining agents, the "supplementary observations" of the document held a straightforward warning: "anything which superimposes uneconomic costs upon the railways can hardly be expected to do otherwise than lead to a more serious and enduring dislocation in industry and, consequently, to a more serious and enduring curtailment of rail employment."

How Report Received

At mid-week the full implications of the Board's decision were not yet clear. Railway officials hinted at curtailing capital and maintenance expenses and CPR unofficially worried about effects the ruling would have on investor confidence and future financing. But spokesmen for both systems said that deeper study of the report would have to be made before its results on operations can be predicted.

The unions would not commit themselves until March 1, when representatives of the 150,000 non-operating employees now trying to gain "fringe benefits" reconvene in Montreal with railway negotiators at conciliation board hearings. The companies have estimated that granting of demands made by the 17 unions involved would cost them $60 millions a year.

Canadian freight rates will, the report indicates, remain based on the revenue needs of CPR to cover bond interest, dividends and surplus. The Transport Board, however, stated that it was free to adopt whatever method of determining rates it considers best, and is not bound to continue the existing system of using the CPR "yardstick." (This is interpreted as opening the door for increased future participation of CNR in setting the freight rate pattern.)

Pointing out that the law of diminishing returns is beginning to assert itself as a result of the long succession of postwar freight rate increases, the Board declared that "other than general rate increases imposed on the basis of the past will have to be found . . . if the railways of Canada are to be maintained in healthy operating conditions."

Net Investment Figure

The only point in the railway's application granted by the Board was the establishment of a net investment figure of CPR's rail holdings. But counter to CPR's demand, the Board emphasized that this would not be used as a rate base. The amount arrived at following the Board's own audit was $1,140 millions at the end of 1951 and $1,176 millions at the end of 1952. (This compared with the CPR's own 1951 figure of $1,146 millions.) The Board said that in future freight rate applications, its amount would be used as one of the final tests in granting increases.

Throughout the hearings CNR has remained pretty well neutral, merely stating that it would accept any freight rate increases granted. The application, however, was bitterly contested by all provincial governments except Quebec and Ontario.

CPR's 1953 yield on rail investments has been estimated at 3%. In its application the railroad asked for a guaranteed return of 6½%.

Impact of this demand on freight rates was estimated by the opposing provinces as a prospective increase of up to 33%. The railroad did not mention any final percentage, stating that it wanted an initial 9% freight rate increase. That would have meant an extra $38 millions a year added to Canada's freight bill.

The Board's Answer

In turning down the rate base-rate of return freight rate setting method, the Board stated that "the nature and the expense of Canada's railway enterprise do not lend themselves to an automatic translation of railway costs into rates . . . based on any preconceived return."

The ruling pointed out that the relationship of rail earnings to investment has elements over which the Board has no control, such as taxation, traffic fluctuations, labor demands and the policies and efficiency of labor management.

"In summary, therefore, the Board is of the opinion that, in the long run, it would be disadvantageous to the interests of the public, the railways and investors alike to give, through the implementation at this time of the Canadian Pacific proposal, any appearance or inference of certainty of solution of a nation-wide transportation problem for which, under present conditions, no certainty exists."

Corporation Bonds
(Supplied by Investment Dealers' Association of Canada)
Feb. 16, 1954

Public Utility Issues:	Int. Rate %	Due	Bid	Ask.	Prev. Week Bid
Alg. Cen. H.B.R.	5	'59	137	140	137
Bell Tele.	4½	'77	85	88	84½
Do.	4½	'67	101	104	101
Braz. Traction	4½	'70	80	83	79
B. C. Electric	3½	'67	87½	90½	87½
Do.	3½	'75	86½	89½	86½
Do.	4½	'77	99½	102½	99½
B. C. Tele.	4	'62	95½	98½	95½
East Kootenay	3½	'67	83	86	83
Gat. Power D	3½	'70	90	93	90
Gt. Lakes Pwr.	4½	'69	95	98	95
Maclaren-Quebec Power	3	69	85	88	85
Mex. Lt. & Pr.	5	'75	74	78	74
Mtl. Trams. B	5	'55	99½	101½	99½
Nat. Lt. & Pwr.	4½	'61	94	97	94
North. Que. Pr.	4½	'67	90	93	90
Power Corp.	3½	67	88	91	88
Quebec Power	3	62	91	94	91
St. Maurice Pr.	3½	'70	88	91	87½
Shaw. W. & Pr.	3	'71	86	89	86
Do.	3½	'73	92	95	92
Un. Fuel Invest.	4	'59	97	100	97
Wpg. Electric	3½	'71	92½	95½	92½
Industrial Issues:					
Abitibi Pr. P.	3½	67	96	99	95
Acadia-Atlantic Sugar	3½	'65	88½	91½	88½
Alaska P. & C.	4½	'66	98	101	98
Aluminum Co.	3½	74	93	96	93
Barvue Mines	5s	'56	94	97	94
Bowater's Nfld. P. & P.	3½	68	87½	90½	87½
B. C. For. Pr.	4½	'66	94	97	94
Burns & Co.	4	63	95½	98½	95½
Can. Steamship	4	'66	97	100	97
Can. Bread	4½	'67	91	94	91
Can. Brew.	4	'69	94	97	94
Can. Canners	3½	'70	90	93	90
Can. Celanese	3	62	90	93	90
Can. Chemical	5½	'71	98½	101½	98
Can. Oil	3½	'62	91	94	91
*Do.	5	'72	104	107	104
Can. West. Lum.	6	'62	97½	100½	97½
Cockshutt Plow	4½	'65	93	96	93
Columbia Cell.	5	'68	98	101	97
Consol. Paper	3½	'67	99	102	99
Dom. Stores	5	'72	100	103	100
Dom. Tar & Ch.	5	67	100	103	100
Dom. Woollens	5	'64	50	53	50
Dryden Paper	5½	'66	99	102	99
E. B. Eddy	4½	'69	99½	102½	99½
Elk Falls Co.	5	'73	97½	100½	97½
Fed. Grain	4	'64	94½	97½	94½
Gen. Stl. Wares	3½	'70	89	92	89
Gt. Lakes Pap.	3½	67	93½	96½	93½
Gt. Plains Dev.	1-4	'65	99	102	99
Husky Oil	5½	'62	99½	102½	99½
Imp. Tobacco	3	'70	86½	89½	86½
Imp. Oil	3	69	88½	91½	88
Indust. Accept.	5	'70	97	100	97
Irving Oil Co.	5½	67	99½	102½	99
Maple L. M.	3½	63	93	96	93
Massey-Harris	5	'67	100½	103½	100½
McColl-Front.	3	71	84	87	84
Mercury Mills	4	63	81½	84½	81½
Mon. Knit.	4½	'71	79	82	79
N. S. Steel Coal	3½	'63	92	95	92
Page-Hersey T.	3½	'65	90½	93½	90½
Price Bros.	3½	66	91½	94½	91½
St. Law. Corp.	5	'72	100	103	100
Silverwood Dair.	4	60-64	90	93	90
Do.	4	'71	87	90	87
Simpsons Ltd.	4½	'73	101	104	101
Simpsons-Sears	4½	'73	101	104	101
Steel Co. of Can.	2½	67	88	91	88
Traders Finance	5½	'68	99	102	99
United Corp.	4	58	99	102	99
United Steel	4	60	89	92	89
Un. Grain Gr.	3½	70	86	89	86
CONVERTIBLE ISSUES					
Abitibi Pr. & P.	4½	'61	99	102	99
Ajax Pete. Ltd.	5	'62	94½	97½	94½
Atlas Steels	5	67	100½	103½	100½
Braz. Traction	4½	'71	79	82	79
B. A. Oil	3½	61	109	112	107
Do.	3½	'62	101	104	100
B. C. For. Pr.	5	'62	98	101	98
Can. So. Oils	3-5	'61	98	101	97½
Can. Brew.	4½	'61	103½	106½	103½
C.P.R.	3½	66	96	99	96
Do.	4	'69	100	103	100
Central Ledue	5	'63	85	89	85
Cockshutt Farm	5	'68	97	100	97
Dom. Magnes.	5	62	107	...	107½
Dom. Steel & C.	4	'61	91	94	91
Dom. Textile	4	'66	93	96	93
Gen. Pete.	4½	65	95	98	95
Jupiter Oils	5	67	87	91	87
Kroy Oils	5	'67	97	100	97
New Concord	5½	68	89	94	89
N. Sup. Oils	5	'64	83	93	88
Pathfinder Pet.	1-5	62	65	75	65
Power Corp.	4½	68	112	117	110
Scurry Oils	5	64	89	93	89
Silverwood Dair.	5½	'72	101½	104½	101½
Supertest Pete.	4	'70	99½	102½	99½
Traders Finance	5½	'69	109	112	109
Trans. Empire	3½	66	94	98	94
Do.	3½	67	95½	98½	95½
Triad Oil	4½	67	104	107	104
West. C. Brew.	5	67	100	103	100

*Payable in Canada, U. S. or U. K.

Must Triple Steel Output —Dosco Chief

MONTREAL (Staff)—To keep pace with our increasing population, Canada's steel industry must triple its capacity in the next 25 years, Dosco President L. A. Forsyth said in Montreal recently.

Pointing out that estimates of Canada's population foresee 25 millions by 1978, he said that "even if our per capita consumption rises only to the level of present U.S. consumption, Canadian demands for steel products will be in the order of 15 million tons a year.

"In terms of our present capacity that means the Canadian industry will have to treble its size in the next 25 years," he declared.

Criticizing the present tariff structure, Mr. Forsyth said that little change has been made in tariffs established in 1907 on a specific duty basis, and that advancing costs in the Canadian steel industry have had the obvious effect of reducing the protection established nearly 50 years ago.

"At present, an appreciable curtailment of steel demand in the U.S., coupled with currency and foreign exchange pressure elsewhere, has confronted the Canadian industry with competitive imports which are, to say the least, embarrassing to a not overprofitable price structure."

Company Reports

To assist readers in appraising and comparing company financial statements, The Financial Post has a uniform method of presenting corporation accounts. Variations from the companies' published reports are footnoted.

CANADIAN INDUSTRIES LTD. net income of $10,826,258 for 1953 was 0.7% higher than 1952 net of $10,752,768.

Sales amounted to $153,587,000, an all-time record and 7% higher than the 1952 total of $143,113,000. Sales improved in most of the markets served by company, report Chairman G. W. Huggett and President H. Greville Smith. Active market for consumer durable goods contributed to a gain in sales of industrial finishes.

Sales of Cellophane, polythene film, polythene resin and compounds, and nylon filament yarn and staple all showed increases. There was some reduction in sales of explosives to the gold mining industry, although sales to other industries were higher. Demand for sporting ammunition also was up.

Direct sales of all products for defence purposes, including ammunition supplied to police forces, accounted for less than 1% of total business. Export sales were slightly lower than in 1952, chiefly owing to non-recurrence of substantial special orders for pesticides.

Raw material prices were generally stable, but increases occurred in prices of some important materials, wage and salary rates and other labor costs.

Continuation of the policy, begun in 1952, whereby full depreciation as allowed for tax purposes on new plant construction was charged, resulted in an increase of $3,694,000 in depreciation provision, bringing the total to $10,934,000.

For the two-year period, $8,064,000 was provided for depreciation on new plants under construction. While this had some effect on net income, say the chairman and president, the reduction in tax payments made important additional amounts of cash available at a time when company was borrowing to finance construction expenditures.

Return on average operating investment declined to 6.5% in 1953 from 7.1% in 1952.

Net investment income was $720,103 ($905,159 in 1952). Interest from government and other marketable securities was almost eliminated as investments were sold to provide funds for construction. On the other hand, dividends from subsidiary and other managed companies increased as their results improved.

Total of subsidiary companies' profits, which are not consolidated, exceeded the sum of dividends declared. Sales and net income of Alchem Ltd. declined. Canadian Safety Fuse Co. showed lower sales but higher net income. For Canadian Hanson & Van Winkle Co. and Cornwall Chemicals Ltd., sales and net income improved over 1952 levels. At Dec. 31, 1953, total assets of subsidiaries were equivalent to about 3% of total assets of C-I-L.

A gain of $223,000 on realization of assets was added to capital surplus.

Capital expenditures of $28.3 millions were highest for any single year in C-I-L history, and brought total investment in operating assets at Dec. 31, 1953, to $171 millions, an increase of 14% on the year. At year-end, $6.3 millions remained unexpended on projects under construction.

The nylon intermediates plant at Maitland, Ont., was brought into production on schedule; first deliveries of intermediates to the Kingston plant, for use in manufacture of nylon yarn and staple, were made in October. The polythene plant at Edmonton was brought into operation in November.

As funds obtained from other sources were insufficient to meet expenditures on new plants and to furnish necessary added working capital, a loan was arranged from the principal C-I-L shareholders, E. I. du Pont de Nemours & Co. and Imperial Chemical Industries Ltd., sufficient to ensure successful completion of construction program. By the end of 1953, $10 millions had been borrowed from these shareholders at current interest rates.

Following a review of company's policy of self-insurance, full coverage of all risks was placed with outside companies in 1953 and the balance remaining in the reserve for property self-insurance was restored to earned surplus.

In October, 1953, a modified plan for segregation or physical division of the plants and properties of C-I-L was proposed to C-I-L directors by the two principal shareholders, du Pont and I.C.I. It is expected that further information regarding the proposed plan of segregation will be ready for release shortly, say the chairman and president.

INCOME ACCOUNT Years Ended Dec. 31:	1953 $	1952 $
Oper. income	29,471,725	23,686,659
Invest. income	720,103	905,159
Less: Deprec.	10,933,545	7,239,229
Inc. tax res.	8,388,900	11,599,221
Loss on sale of secs.	43,125	.....
Total net income	**10,826,258**	**10,732,768**
Less: Pf. divds.	325,500	325,500
Com. divds.	7,059,081	7,059,081
Surplus for year	**3,441,677**	**3,368,187**
Earnings per Share and Dividend Record:		
Pref.: Earned	$232.62	$231.24
Paid	7.00	7.00
Com.: Earned	1.49	1.48
Paid	1.00	1.00

CONDENSED BALANCE SHEET As at Dec. 31:	1953	1952
Cash	$3,109,035	$4,630,722
Accts. rec.	13,635,913	14,644,241
Mkt. secs.	...	8,432,277
Inventories	25,925,014	21,454,411
Total curr. assets	**42,669,962**	**49,161,651**
Misc. assets	1,241,456	771,391
Investments	1,184,533	1,184,533
Land bldgs., etc.	126,638,749	99,587,090
G'will, pats., etc.	3,377,151	3,377,151
Total assets	**175,111,851**	**154,081,816**
Accts., etc., pay.	25,263,584	14,763,098
Taxes pay.	4,097,847	7,263,834
Total cur. liab.	**29,361,431**	**22,026,932**
Depr. reserve	58,552,980	48,536,404
Other reserves	2,958,768	5,039,851
Capital stock	22,055,336	22,055,336
Capital surplus	29,864,439	29,641,325
Earned surplus	32,318,967	26,781,968
†Market value	.....	8,576,000
Working capital	**13,308,381**	**27,134,719**

Grain Prices

Chicago Futures
Week to February 15, 1954

Crop year from Aug. 1, 1953 High	Low		High for week	Low for week	Close Feb. 15
Wheat—					
2 37½	1.85¼	Mar.	2.18¼	2.12¾	2.14¼
2.21	1.86¼	May	2.16¾	2.13¼	2.15¼
2.13	1.81¼	July	2.13	2.09	2.11
2.15	1.95¼	Sept.	2.15¼	2.11¼	2.13¼
2 18¼	2 08¾	Dec.	2.18¼	2.14¾	2.16¾
Corn—					
1.61	1.37	Mar.	1.54	1.51¾	1.51¾
1.61¾	1.38¾	May	1.55¼	1.52¼	1.53
1.60¾	1.45¼	July	1.56¾	1.54¼	1.54¾
1.55	1.49¼	Sept.	1.54¼	1.52	1.52¼
1.47¾	1.43¾	Dec.	1.47¾	1.43¾	1.45¼
Oats—					
.87¼	.72¾	Mar.	.79¾	.77¾	.77¾
.79¾	.70¾	May	.77¾	.75¾	.76¾
.79¾	.66	July	.74¼	.73¼	.73¼
.75¼	.70¾	Sept.	.73¼	.72¾	.72¾
Rye—					
1.29¾	1.12¾	Mar.	1.24¾	1.22¼	1.20¾
1.53¾	1.14¾	May	1.26	1.22¾	1.22¾
1.36	1.16¾	July	1.28¾	1.25	1.25
1.34¼	1.34¾	Sept.	1.29¼	1.27	1.27¾
Soybeans—					
Mar.			3.24¾	3.17	3.23
May			3.26	3.18	3.23¾
July			3.22¾	3.15¼	3.21
Sept.			2.68¾	2.65¾	2.68¼
Nov.			2.45¼	2.43	2.43¼

Chicago Cash

	For Week Feb. 15 High	Low	Prev. week High	Low
Corn—				
2 Yell.	1.60	1.56	1.58¼	1.55¼
Oats—				
1 H. Wh.	.82¾	.82¾	.84¾	.83¼

Winnipeg Futures
Week to February 15, 1954

Crop year from Aug. 1, 1953 High	Low		High for week	Low for week	Close Feb. 15
Oats—					
.74¾	.67	May	.74¾	.72¾	.73¾
.71	.67¼	July	.70	.69¾	.69¾
.69¼	.67¼	Oct.	.69	.68¼	.68¾
Barley—					
1.11¾	.93¾	May	.96¾	.96¾	.96¾
1.00¾	.92¾	July	.94¾	.93¾	.93¾
1.02¼	.91¾	Oct.	.93¾	.93¾	.93¾
Rye—					
1.32¾	1.02¾	May	1.09¾	1.06	1.06
1.10	1.01¾	July	1.08¼	1.05¼	1.05¾
1.08¾	1.02¼	Oct.	1.08¾	1.06¼	1.06¼
Flax—					
3.23	2.56	May	3.18¾	3.13¾	3.15¼
3.14¾	2.58	July	3.09¾	3.06	3.06¼
3.01	2.79	Oct.	2.91¼	2.87¼	2.89¾

Winnipeg Cash

	For Week Feb. 13 High	Low	Prev. week High	Low
Oats—				
2 C. W.	.76¾	.75¾	.73¾	.74¾
3 C. W.	.72	.71¼	.71¼	.70¾
Barley—				
1 Feed	.92¼	.92¼	.92¾	.91¾
2 Feed	.91¼	.91	.91¼	.90¾
1 Malt	1.09¾	1.09¾	1.09¾	1.08¾
Rye				
2 C. W.	1.06¾	1.03	1.05¾	1.04¾
1 C. W.	1.04	1.03	1.05¾	1.04¾

GSW Names Marshall Overseas Export Agents

General Steel Wares Ltd., of Toronto, have recently appointed G. R. Marshall & Co., Toronto, as sole export agents for distribution overseas of such products as housewares, washing machines, electric refrigerators, electric and gas ranges, clothes dryers, water heaters, coal and wood stoves, oil furnaces, space heaters.

G. R. Marshall & Co. specialize in export of Canadian products through well established connections in most countries of the world.

65.4% INCREASE
Jan. 31, 1950 to Jan. 30, 1954

M·A·F
MUTUAL ACCUMULATING FUND
TOTAL INVESTMENT PERFORMANCE PER $10,000 NET ASSETS

JAN. 31ST, 1950 -	$10,000
DEC. 31ST, 1950 -	12,350
DEC. 31ST, 1951 -	14,400
DEC. 31ST, 1952 -	15,150
DEC. 31ST, 1953 -	15,887
JAN. 31ST, 1954 -	16,536

McCUAIG BROS. INC.
276 ST. JAMES ST. - - MONTREAL

OSLER, HAMMOND & NANTON LIMITED
MAIN & PORTAGE AVE., WINNIPEG
1938 HAMILTON ST. - - - - REGINA
510 - 8TH AVE. W. - - - CALGARY
525 SEYMOUR ST. - - VANCOUVER

Pemberton Securities LIM

ANNOUNCEMENT

Hon. M. R. BRIDGEMAN, C.B.E.

A. F. DOWN, O.B.E., M.C.

E. H. Tanner, President of Triad Oil Co. Ltd., announces the appointment of two additional directors, The Honourable M. R. Bridgeman, C.B.E., and A. F. Down, O.B.E., M.C. Both were nominated to the Triad Board by D'Arcy Exploration Company Limited, a wholly-owned subsidiary of Anglo-Iranian. D'Arcy Exploration recently made a substantial purchase of Triad shares.

Mr. Bridgeman, who is Managing-Director of D'Arcy Exploration, and Mr. Down were members of the party from Anglo-Iranian which visited Canada last August. Mr. Down will be Anglo-Iranian's resident representative in Canada.

Mr. Bridgeman joined Anglo-Iranian in 1926. During the war he was Petroleum Adviser to the Ministry of Economic Warfare in 1939 and was lent in the same capacity to the Government of India in 1942. From 1944 to 1946 he was Principal Assistant Secretary, Petroleum Division, Ministry of Fuel and Power.

Mr. Down joined Anglo-Iranian in 1938 after qualifying as a Chartered Accountant. He has worked at Haifa, Abadan, and in the Persian oilfields as well as at Anglo-Iranian's London headquarters. During the war, after serving in the Middle East and Italy, he was with the Canadian forces in Belgium, Holland and Germany, ending his war service as a Colonel on the staff of Canadian Army Headquarters.

Three Geco Holes, Lun-Echo Hole In Ore, Drills Continue Manitouwadge Probe

By GORDON M. GRANT

Manitouwadge news this week features three more holes in ore at Geco Mines, a first copper-zinc ore intersection by Lun-Echo Gold Mines and a reported second intersection at Willroy Mines for which details weren't available at press time.

Latest holes at Geco tend to fill in an already satisfactory ore picture both east and west of the fault while the first hole at Lun-Echo, on visual inspection, has given about 1-2% copper and 7% zinc over 14.4 ft. from footage 160-174.4. A second hole, going to 500 ft., was to undercut the ore intersection in the first hole at between 200 and 300 ft., and was expected to be completed about midweek.

Another Lun-Echo drill is scheduled to swing into action 1,500 ft. to the south in a section where a surface trench gave 15% zinc over 30 ft. without footwall being reached; a possibility of copper in the footwall exists at this location. No drill testing has yet been done on the 60-ft. wide copper showing 1,800 ft. to the southeast again.

Geco Ore Continuous

At Geco Mines, No. 23 hole drilled in the 215-ft. gap between No. 21, the most westerly and record-breaking hole, and No. 19 hole to the east, has returned a true width of 190 ft. averaging 2.07% copper, 1.70% zinc and 0.87 oz. silver. There is additional core to be assayed for this hole which is almost certain to increase the true width and which might possibly improve the average grade.

This drill is now moving 100 ft. to the west of No. 21 for the drilling of an extension hole. However, this drill must be moved over 1,000 ft. to get to its new location due to steep face of a cliff.

To the east of the fault at Geco, No. 20 hole has given good values over an outstanding width while another deep hole, No. 22 under No. 6, has given a very good zinc intersection on visual inspection with copper to be determined by assay.

No. 20, drilled under No. 4, has shown a true width of 109 ft. averaging 1.58% copper, 3.85% zinc and 1.32 oz. silver. The good copper values extended over the full width with high zinc values representing quite a small part of the core.

No. 22, the other easterly hole drilled under No. 6, has returned 120 ft. of core which the management thinks might run 10% zinc on assay. There were massive sulphides throughout this hole and because of the fine-grained mineralization no estimate of copper values was attempted. (Early street reports of 3% copper for this hole on visual inspection did not emanate from the management and values this high are reported unlikely.)

A highly mineralized section of 60 to 70 ft. lying to the south would represent a true width of about half that footage and officials are not too hopeful that this new parallel section will make ore in this particular hole. At last report from the property, No. 22 hole was still in ore continuing the 120-ft. core section mentioned above. The 120 ft. of core arrived in Toronto for assay Tuesday.

The first Lun-Echo exploratory hole was carried to 259 ft. and was not put down under either the poorest or best part of the surface showing at this northerly location. The next hole, to 500 ft., was being drilled from the same location.

Difficult weather has hampered communication and deep snow has made progress at most drilling operations slower than would ordinarily have been anticipated.

Quebec Copper's New Mill In Operation; Output Sold

A new 800-ton mill is now gradually being worked up to capacity at the Eastman, Que., property of Quebec Copper Corp. Approximately 500 tons of ore is being treated a day at present and initial operations are reported eminently satisfactory.

A recovery of 92% is stated to have been effected to date and concentrates produced have had a grade of about 25%.

The new producer, which is located about 70 miles east of Montreal, is stated by President Pierre Beauchemin to have sufficient ore reserves to keep the mill operating at capacity for the next four to five years. Reserves grade better than 2% copper.

Ore reserves are estimated to only the 1,160-ft. horizon but Mr. Beauchemin points out that drilling has shown ore to a depth of 1,600 ft. with conditions similar to those on levels above 1,000 ft.

A sales contract covering the next year's copper production has been arranged at prices prevailing in March, April and May and the company expects this to assure a good price for this period at least.

With production attained, management has decided to launch an extensive exploration campaign through diamond drilling and underground development to open up drill-indicated ore which has not yet been placed in the developed category. It is pointed out that the company's property is 3½ miles long with geology suggesting the occurrence of additional ore bodies.

Mill construction was under direction of Robert Guillemette, a former employee of Sullivan Consolidated and funds for mill construction were provided jointly by East Sullivan Mines and Sullivan Consolidated.

Arrange Centre Lake Finances Through Consol. Ranwick Deal

Financing of further work at the Centre Lake Uranium Mines property has been assured under a deal by which Consolidated Ranwick has raised $385,000 from sale of 700,000 of its treasury shares to Alator Corp., Ventures and John M. Easson & Co., Toronto.

Consolidated Ranwick holds options on 1,184,000 Centre Lake shares at 75c to $1.75 a share and present efforts are to be directed toward further development of the Centre Lake property in the Bancroft area.

In addition to selling 700,000 shares, Consolidated Ranwick has granted options on 200,000 shares at 65c a share, exercisable within three months and on a further 100,000 shares at 75c exercisable within six months.

Development of Centre Lake Uranium has consisted of extensive surface work, some 14,000 ft. of diamond drilling and 15,000 ft. of underground development on an adit level approximately 90 ft. below surface. This is stated to have disclosed a substantial tonnage of commercial-grade uranium ore amenable to metallurgical treatment. Consolidated Ranwick's engineers have returned favorable reports on the company's ore position and consider the property to have "outstanding possibilities."

While Consolidated Ranwick holds extensive uranium-bearing acreage at Charlebois Lake in Saskatchewan, as well as its properties in the Montreal River area of Ontario, present efforts will be entirely directed toward furthering of the Centre Lake project.

Mine Strike Settlements Follow Noranda Pattern

Settlement of three more mines strikes this week all but ended the months-long walkout in Northern Ontario and Northwest Quebec. One other mine still idle at midweek—Normetal—was expected to continue talks with agreement apparently imminent.

The long series of strikes started early last July and involved some 7,000 miners. First break came just before Christmas with a sudden settlement at Hollinger.

This week's signing at Noranda, the biggest mine, with 1,600 employees, brought a 7½% increase which means from 8c to 13c an hour more for employees on top of the $1.05 base rate. Original union demand was for 22c an hour. No check-off was given.

At Waite Amulet, where settlement was reached Monday, terms were the same as at Noranda. About 300 men are affected. The Quemont settlement Tuesday also followed the Noranda pattern.

Conecho Drilling Uranium Showings At Quirke Lake

A program of diamond drilling is now in progress to test a highly radioactive discovery opened in the north part of the 40-claim Quirke Lake property of Conecho Mines, in the Algoma uranium area. The claim group is located on the northern belt of radioactive mineralized conglomerates about 1¾ miles east on strike of Algom Uranium's Quirke Lake development.

The program embraces a series of short holes to be drilled north from the ice to explore for the granite-quartzite contact and basal conglomerate member, in the area where surface work exposed a highly radioactive showing on the north shore of Quirke Lake.

Stripped for an east-west length of 300 ft., open at both ends, the discovery occurs as an 8-ft. to 10-ft. thick bed of well-mineralized conglomerate in the quartzites giving high radioactive readings of 15 to 20 times background.

The first hole is reported to be drilling in the favorable Mississagi quartzite formation and it is anticipated this hole will cut at depth, the extension of the radioactive conglomerate surface exposure.

Work is under the direction of Technical Mine Consultants.

ALBERTA OIL OUTPUT

Crude oil production in Alberta averaged 251,748 bbls. daily for the week ended Feb. 8, 1954. This compared with the previous week's 222,788 bbls. a day and 167,486 bbls. daily for the same week a year earlier.

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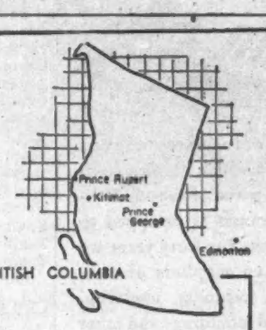

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"ECLIPSE FIRST, THE REST NOWHERE"

DENNIS O'KELLY — reporting Eclipse's win at Epsom, England, 3 May, 1769.

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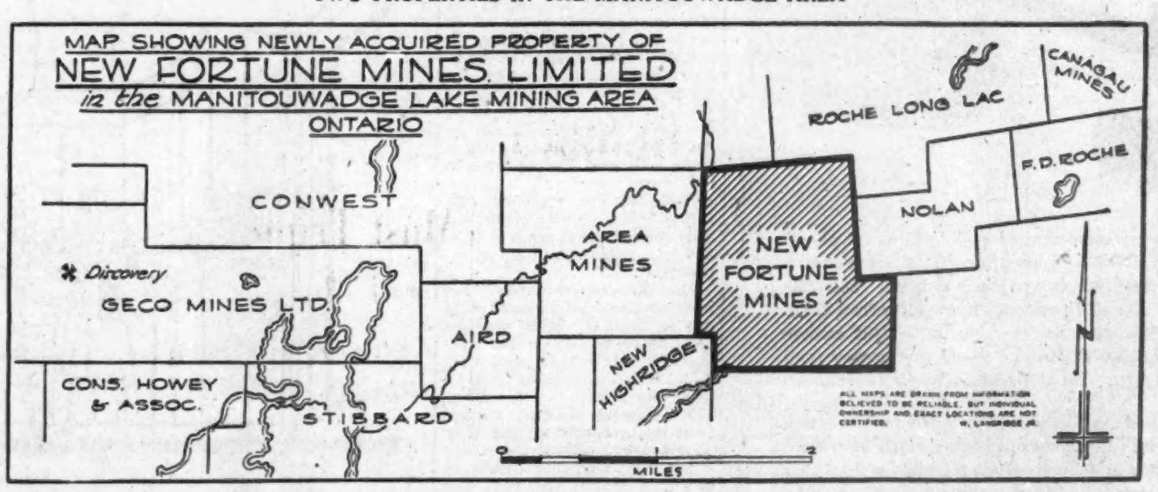
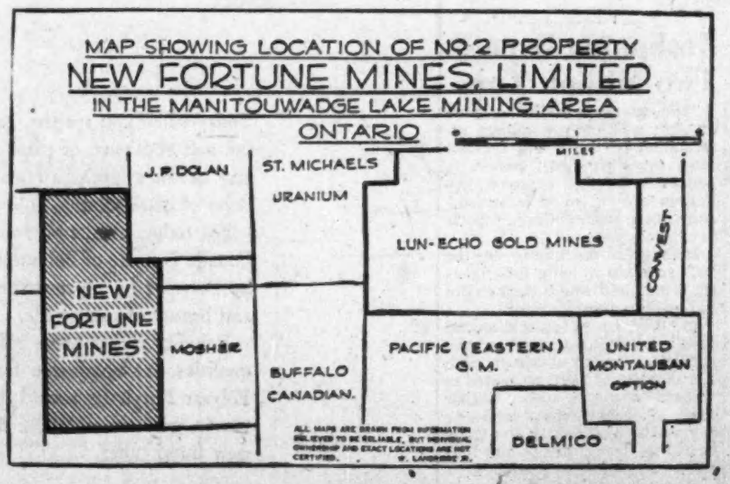
For the Information of unregistered shareholders of
NEW FORTUNE MINES LIMITED
TWO PROPERTIES IN THE MANITOUWADGE AREA





Above is shown the company's east group of 26 claims and to the left the west group consisting of 27 claims in the Manitouwadge area. The properties are located approximately 10 miles apart on an east-west line. An electrical resistivity survey is now underway on the east group.

New Fortune Mines Limited shares are listed on the Toronto Stock Exchange and Canadian Stock Exchange.

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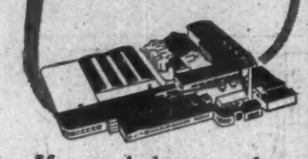

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Geco Dispute

Tombill Outlines Basis Of Claim to Geco Properties

With filing of their statement of claim in the suit against General Engineering Corp. and others over Geco Mines and other property holdings, Tombill Gold Mines officials have now put in detailed reasons why they think they should be holding properties now being worked by Geco.

Named as co-defendants are: R. M. P. Hamilton, P. D. P. Hamilton, W. S. Hargraft.

Tombill is asking for a declaration that all claims and options were acquired as agent or agents of Tombill and that proceeds from sale or disposal are held in trust for the company. Delivery of the claims or proceeds is sought. Alternatively, Tombill asks for damages.

The Tombill statement speaks of an extended relationship with W. S. Hargraft, a "skilled mining engineer" who at one time worked for Tombill Gold Mines. It is stated that Hargraft, with General Engineering, continued to act for Tombill after entering General Engineering Co. employment.

Introducing the situation, Tombill says that when a group headed by President James A. Grant secured control of Tombill back in January, 1946, Mr. Hargraft at that time received a 25,000-share commission for his services. Robt. M. P. Hamilton of General Engineering Co., it is said, was later elected a director of Tombill and continued as such until his resignation on Aug. 26, 1953. Tombill had employed Hargraft from Jan. 25, 1946 until August, 1948, when he became employed by General Engineering Co.

General Engineering Connection

"Mainly with a view to obtaining the services of the defendant Hargraft on or about the 1st day of April, 1949, the plaintiff employed the defendant, General Engineering Co. Ltd., as mining consultants and general engineering consultants of the plaintiff" says the Tombill statement.

Under the terms of its employment, General Engineering Co. Ltd. was to make available Hargraft's services not only for general exploration but for staking of claims and negotiation of options as well, it is stated.

"All mining properties and interests in mining properties and options to purchase mining properties and interests in mining properties available for acquisition which came to the attention of the defendant Hargraft and which he considered to have merit were to be submitted to the plaintiff," Tombill continues.

"In 1949, General Engineering Co. Ltd. was employed on a retainer basis for a period of six months, and during 1950 was employed on a per diem basis and from Jan. 1, 1951, was employed continually on an annual retainer basis plus a per diem charge to be made under certain circumstances.

"The plaintiff at all times during the employment of the defendant, General Engineering Co. Ltd. renewed annually and maintained in good standing Ontario Miners License No. A23147 in the name of the defendant Hargraft," the statement continues.

Entry Into Manitouwadge

Here are the developments, as stated by Tombill, about which Tombill feels it has a case:

"About the middle of August, 1953, Hargraft for himself, R. M. P. Hamilton and P. D. P. Hamilton acquired an option to purchase mining claims Nos. TB 46849-50-51, TB 46845-6-7 and TB 46872-3-4-5-6-7-8-9 in the Manitouwadge area of the Port Arthur Mining Division from Roy Barker, J. E. Forster and Wm. Dawidowich" (for $30,000 cash and 450,000 shares in a new company to be formed if option exercised).

"On or about the 5th and 6th days of August, 1953, Hargraft staked and recorded in his name seven mining claims contiguous to the above Nos. TB 47086-7-8-9, TB 47090-1-2 and on or about August 22, 1953, Hargraft staked and recorded in his name two mining claims contiguous to TB 46850-1 namely TB 47116-7 all being staked by Hargraft on said Miners License No. A23147. In addition, the Hamiltons, Hargraft and General Engineering Co. Ltd. acquired Nos. TB 47111-2-3-4-5, TB 47127-8, TB 47130-1-2 (all later acquired by Geco Mines) and also acquired other claims and options, it is stated.

Tombill says the Hamiltons and Hargraft were "officers and servants" of General Engineering Co. Ltd. and that R. M. P. Hamilton was also a director of Tombill Gold Mines, and states that the acquisitions must have been on behalf of Tombill rather than these individuals personally.

On or about Aug. 4, 1953, the statement goes on, Hargraft advised James A. Grant, Tombill president, that a syndicate was being formed to take over certain mining properties in Manitouwadge Lake area. Tombill claims that President Grant immediately informed Hargraft that any claims or options so acquired would belong to Tombill.

General Engineering Co. by letter dated Aug. 26, 1953, Tombill says, notified Tombill that the services of Hargraft were no longer available to the plaintiff and that General Engineering Co. wished to terminate its employ with Tombill.

Geco Mines, it is stated, received assignment of the Barker-Forester option and 10 claims were also transferred for 300,000 shares of Geco Mines. Hargraft was also stated to have turned over nine other claims for unknown consideration.

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Rexspar Results Boosting Tonnage

With "BD" ore tonnage being progressively enlarged by underground drilling now under way, Rexspar Uranium & Metals Mining Co. is accelerating its program with addition of a second shift, Paul E. Young, chief engineer of Technical Mine Consultants reports.

Latest underground drilling has shown uranium ore intersections over true widths of 50 ft. to 70 ft.

Drilled from the main 2485 crosscut to explore the hanging wall section of the zone, Hole BD-103 cut a 136-ft. ore section representing a true width of 60 ft. assaying an average 0.07% U_3O_8 equal to $11.60 per ton, based on U_3O_8 at $7.25 per lb.

Hole BD-104, collared from same setup as BD-103 obtained a true width ore intersection of 52 ft. grading an average 0.1% U_3O_8 or $14.50 per ton.

Hole BD-105, collared in the 2490 east crosscut about 50 ft. north from the main drift turn off and drilled to explore the hangingwall section of the zone obtained an ore intersection, of 138.2 ft., a true width of 70 ft. Results of Hole BD-106, exploring the footwall zone, are awaited along with assays on the previous hole.

Hole BD-107 exploring the further down dip extension of the zone entered ore at depth of 45 ft. and was continuing in ore at report time.

The BD main drift north has been advanced a further 30 ft. in ore to 250.6 ft. Muck samples from three rounds in the drift averaged 0.11% U_3O_8 equivalent to $15.95 per ton based on U_3O_8 at $7.25 per lb.

Mr. Young further advised that, the upwardly revised "BD" zone tonnage estimates are now being completed and should be available within the next few days.

Anthonian Expects Two Million Tons

"The extension of the 'A' zone together with the preliminary information of the North Contact zone, gives us every reason to believe a tonnage of some two million tons . . . is now indicated," Anthonian Mining Corp. reports to shareholders.

Drilling is continuing on the "62" group in which a 45% interest is held and where the two ore bodies have been outlined.

In "A" zone, 14 initial diamond drill holes were estimated to have outlined a length of 950 ft. with a true width of 14 ft. estimated to contain approximately 500,000 tons of copper-silver-lead-zinc ore averaging $15.55 a ton gross to 375 ft. depth. Silver and lead values are stated to predominate.

Since the above estimate, "A" zone has been extended to a length of 1,800 ft. and is still open. A second drill was started some 600 ft. north of "A" zone and has encountered good ore in several holes. This is called the North Contact zone.

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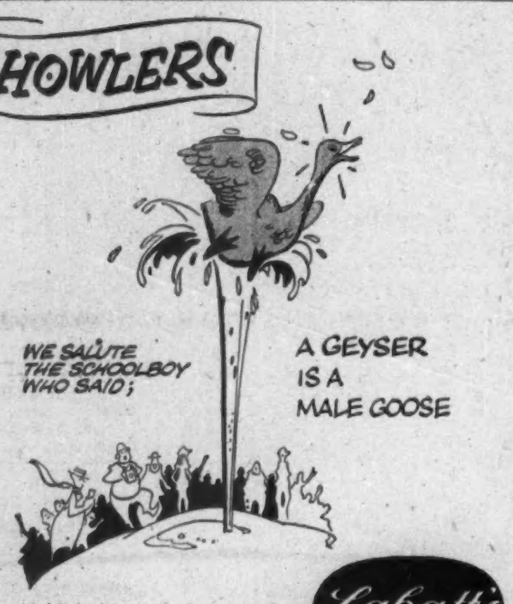

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MINING INVESTMENTS

United Asbestos Program To Get Quebec's Sanction

The Quebec Government is expected to approve shortly plans of American Smelting & Refining Co. involving expenditure of $20 millions "to develop the asbestos deposits below the waters of Black Lake in the Eastern Twps. asbestos belt," according to reports quoting Quebec Minister Iancrède L'Abbé, who represents the Quebec constituency in which Black Lake is situated.

American Smelting, backer of United Asbestos Corp., it is stated, plans to dry up the lake, build an artificial lake 1½ miles down Bécancour River and exploit "tens of millions of tons of pit asbestos."

Minister L'Abbé is quoted as saying United Asbestos will spend at least $20 millions before it gets paid for the first ton of asbestos recovered from the lake.

Other informants in Quebec City say that ASR officials were present in Quebec last week and that a dinner was tendered by government officials. While working out of some details has apparently taken longer than expected, the green light on this project is now apparently quite close.

• • •

Seeks Yukon Project

If the Frobisher-QMI interests decide to launch their Yukon-B.C. metallurgical operation at a site south of Tulsequah at the head of Taku Inlet (the present favored location), the Board of Trade of Stewart, B.C., thinks their town would probably be preferable to the head of Alice Arm which has been mentioned as a possible alternative.

Stewart, at the head of Portland Canal, it's claimed has "far superior facilities available."

R. F. Cornwall, secretary of the Stewart Board of Trade, in a letter to Frobisher's Thayer Lindsley, declares:

"It is fully realized that any consideration of Stewart or Alice Arm depends entirely on the feasibility of transmitting power over a very long distance of rugged terrain and we do not presume to advise in this regard. However, we are unable to fathom the reason for Alice Arm having been chosen in preference to Stewart, since it would appear evident to us (and many here have lived also at Anyox and Alice Arm) that this locality must be much more suitable in every way geographically to such a development in addition to the fact that it would require an appreciably shorter transmission line."

Stewart is stated t have excellent deep water port facilities against a reef situation at the approach to Alice Arm which makes some ships unwilling to enter after dark. Port potential is stated to be superior at Stewart with more available land for development of a metallurgical industry.

• • •

Zenmac Steps Up

Activity in shares of Zenmac Metals this week could not be explained by any striking news from exploration and was apparently attributable to the stepped up drilling program now being launched.

A drill hole being put down on the Moon Lake group encountered a fault at 399 ft. with some mineralization above and below the fault. While results have been better than at the first group, material is not yet up to ore grade.

A second drill is on No. 3 group in Twp. 156 at Gullbeak Lake, west of Quirke Lake, while a heavy duty drill was expected to be set up on No. 11, another westerly group, by the end of the current week.

Roy Silver Gives Elk Lake A New Producer of Cobalt

New interest was created in an old Ontario silver area with the recent opening of a new cobalt mill at Elk Lake, northwest of Cobalt. Roy Silver Mines started construction on its 75 to 100-ton daily capacity mill, Oct. 1953, and by Feb. 8, 1954, Roger Gareau of Cobalt, designer and layout superintendent, had the mill in operation.

On the official opening, Feb. 13 — at which Mines Minister P. T. Kelly officiated — the mill was running quite smoothly at an average rate of about 50 tons per day. According to the mill superintendent, mill heads during the few days' trial period appeared to be running approximately 0.55% cobalt; he hoped that a recovery of between 80% and 85% would be possible. All the concentrates, which are expected to grade approx. 11% to 12% cobalt, are to be shipped to the new refinery at Cobalt, owned by Cobalt Chemicals Ltd.

The new mine, consisting of five claims, is located in Farr twp., Gowganda area, Ont., some 10 miles northwest of Elk Lake and only three miles off the main highway. A road was recently built connecting the mine with the main highway with construction costs shared equally by Roy Silver and the Ontario Government. A considerable amount of exploration work was done by previous owners, who also sank a 66-ft. shaft.

The present owners, headed by a group of Pittsburgh businessmen, undertook to carry out an intensive program of exploration, including dewatering the old workings.

By official opening date, when The Post visited the property, the shaft was deepened to the 300-ft. horizon, stoping and raising was under way on the first three levels (66, 135, and 205 ft), and lateral work was getting under way on the bottom, or 295-ft. level. The cobalt-copper vein is stated to have been opened for a length of 500 ft. underground indicating an average width of approx. 20 to 24 in. and an average grade of approx. 0.75% cobalt plus some copper and silver.

Consulting engineer M. C. Halstead estimated developed ore to 295-ft. depth at around 35,000 tons, or sufficient for almost two years' operation at the present milling rate of 50 to 60 tons per day. The mine manager, J. G. Pollard, expressed the hope of keeping mining and milling costs at about the $13 to $14 per ton level.

Roy Silver Mines also owns four other cobalt-silver prospects in Coleman, South Lorrain, Haultain, and Whittson twps. With production now under way, the president, M. Marcus, stated that the company intends to concentrate efforts on a more intensive exploration program for the purpose of improving the company's ore reserve position.

If results from such work prove successful, Mr. Marcus indicated that mill capacity would be increased to double the present capacity.

First exploration work is proposed for a group of four claims in Whittson twp., known as the White Reserve claims, which are located some 15 miles west of Elk Lake. At the turn of the century, some high grade silver ore was shipped from this property, which was opened by a shaft to a depth of 145 ft. Roy Silver plans to dewater the shaft and thoroughly investigate the property's potentialities.

Amer. Nepheline Operating Profit Doubles In 1953

Operating profits before taxes more than doubled for American Nepheline in 1953 with profit up to $423,313 as compared with 1952's $207,479.

Profit after taxes, but before write-offs, increased from $206,729 to $387,313.

After 1953 write-offs of $303,216, 50% more than the $205,497 of 1952, net profit was $84,097 as against only $1,232.

M. R. Jennings, secretary, notes that press reports indicate that a private bill to authorize the CPR to construct a railway line from Havelock, Ont., to Nephton, a distance of 17 miles, has received second reading from the Senate committee. More definite information on this project is expected to be available in time for the annual report.

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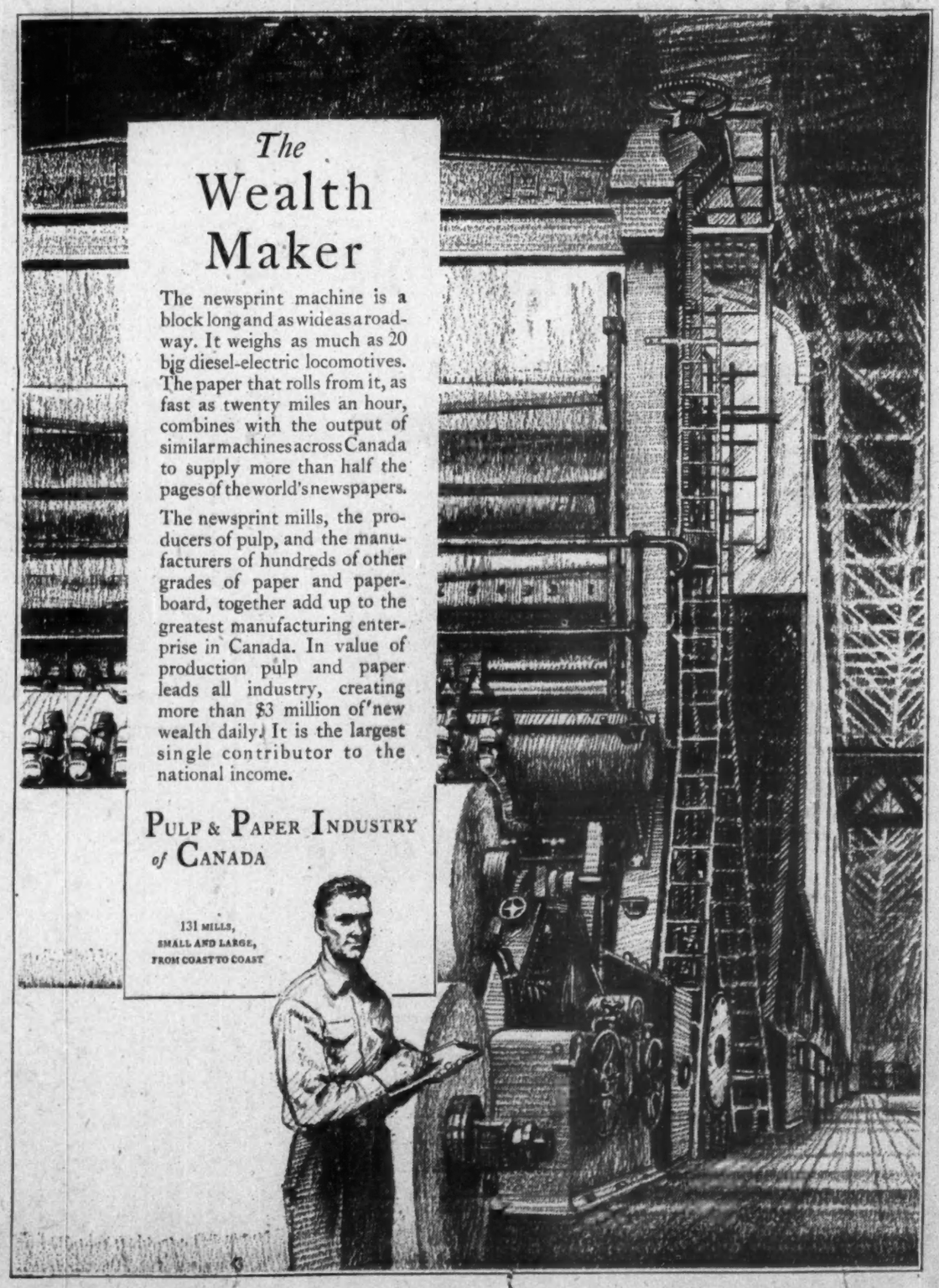

The Wealth Maker

The newsprint machine is a block long and as wide as a roadway. It weighs as much as 20 big diesel-electric locomotives. The paper that rolls from it, as fast as twenty miles an hour, combines with the output of similar machines across Canada to supply more than half the pages of the world's newspapers.

The newsprint mills, the producers of pulp, and the manufacturers of hundreds of other grades of paper and paperboard, together add up to the greatest manufacturing enterprise in Canada. In value of production pulp and paper leads all industry, creating more than $3 million of new wealth daily. It is the largest single contributor to the national income.

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LETTER FROM LONDON — By Adelphi

Bitter Pills For Sport Fans

U.K. Walloped By B.W.I. at Cricket, N.Z. at Rugger

LONDON — The clear, cold weather has departed and Britain has at last reverted to form. February, so far, has been soggy, muggy and murky. It is true that the sun is shining in Britain's colonies in the West Indies but even there the scene is clouded by England's two defeats in the Test Match. The Englishman is a good loser, but then he ought to be. He gets so much practice at it.

While our cricketers are being massacred in the sun, the visiting New Zealand ("All Blacks") rugger team is duly beating up the British teams including the All-England side. Their forwards are heavier than ours and, of course, the visitors enjoy the advantage of having played together for some time.

The English game is much faster than American or Canadian football, and we are spared the cabinet meeting (with heads down and posteriors protruding like vast mushrooms) which take place before each play in North American Rugby.

On the other hand, the English players never seem to have anything up their sleeve, No one ever tries a long pass, and certainly the constant kicking into touch is a bore.

Another Great Film Of a Royal Tour

While we are on the subject of the British family of nations I hope you in Canada will rush to see the film of the Royal Visit to New Zealand. It is beautiful and wonderfully moving. I have never seen the Queen to such advantage. Sustained by some inner spirit she never shows a sign of weariness or boredom. She has a youthfulness that is not merely a matter of age—a youthfulness of the spirit which is utterly charming.

It is easy and natural to flatter a monarch, but 100 years from now when our descendants look at these films of the Royal Pilgrimage I believe they will say: "She was a fine and lovely person."

* * *

Cancer Statements Hits Tobacco Shares

There is trouble in Tobacco Road. The Minister of Health officially stated this week that a relationship has been officially established between smoking and cancer of the lung. The Minister said that his action in making the statement had the full approval of the Cabinet.

He admitted that there was as yet no knowledge of how smoking induced or influenced cancer of the lung but his medical advisers were convinced that the relationship definitely exists. Not unnaturally, tobacco shares fell sharply on the announcement and a group of big tobacco firms at once offered to give £250,000 for research into the causes of the disease. On the advice of the Minister of Health the money will go to the Medical Research Council.

This, of course, is not the first time the tobacco firms have faced the cancer scare. Each time the subject has been discussed publicly in U. S. there has been a sharp reaction here. However, there are always buyers for the shares when they drop. The shrewd investor believes that the lure of Lady Nicotine is stronger than her menace.

* * *

Say Kemsley To Shed His Newspaper Empire

The latest "takeover" bid on the Stock Market is said by the Daily Recorder to be with Lord Kemsley's newspaper shares. There was, in fact, a sharp rise this week which had nothing to do with the general affairs of Kemsley's newspaper kingdom.

I find it difficult to believe that His Lordship wants to shed his newspapers. Certainly he is facing costly competition in Manchester and other northern cities which Lord Beaverbrook intends to invade, but on the other hand the Sunday Times (no relation to the daily Times) gives Lord Kemsley much influence in arts and politics.

Incidentally, Chancellor Butler, in a lucid speech at Westminster, dealt with this new problem of the "takeover" bid. You may remember that, a few months ago, there was a terrific battle for the control of the Savoy Hotel Group. In the struggle the shares soared recklessly.

This shocked the Socialists who are more naturally tuned to nationalized industries which no sane man would buy even if he had the money. The Socialists demanded a debate and had a good day denouncing the wickedness of share gamblers.

Butler, however, kept admirably cool. He admitted that a "takeover" bid with no other purpose than to unload the shares at an enhanced price was a bad thing. On the other hand it would be madness to place a prohibition on it altogether. A "takeover" bid by a vigorous individual or a group could well mean great advantages not only to shareholders but to employees.

"I'll keep an eye on it," said Butler, "but we must be careful not to fall into the error of killing initiative." He had complete command of the House and looked as if he had not a worry on his mind.

* * *

Butler Still Holds Political Spotlight

It is an odd thing that Butler, with his family background of scholarship and officialdom — to say nothing of his being president of the Royal Society of Literature — should be the most powerful finance minister since Lloyd George.

Anthony Eden, his friend and rival, is still sitting among the waxworks in Berlin. Having got nowhere (as yet) on Austria they have now taken up Trieste. Poor Austria! It lives on mountains and history. Its young people are emigrating all the time but the old people remain behind.

Still another by-election in Britain this week showed a decreased poll but an increased Conservative majority. The Tories are under constant criticism in the country but there are no signs that the people want the Socialists back. Consequently there are many Tories who think that Churchill should resign this summer and let his successor hold a general election in the autumn. But Sir Winston shows no disposition to rush matters. He still hopes to crown his great career by laying the foundations of world peace.

* * *

Find U. K. Public Tiring of TV

The future of Churchill is not the only puzzle to be solved. On every hand people are asking in one form or another: "Where does television go from here?" Investigation proves that the public is tiring of television at an alarming rate. Certainly the programs are receiving a rough hammering from the critics.

Television is a monster that devours its victims without reducing its appetite. You can be a raging favorite for six weeks and then no one wants to see you on the screen again. Adverse criticism is so persistent that the program makers are at their wits' end.

Certainly by the time sponsored television comes along the people will be in a mood to give it a fair chance. But even if the programs do improve with sponsorship it would seem that television will never obsess the British as it has done the Americans.

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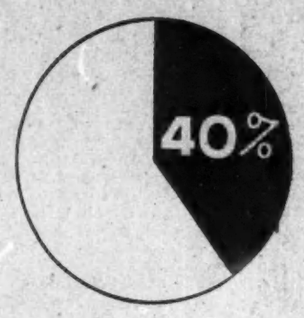

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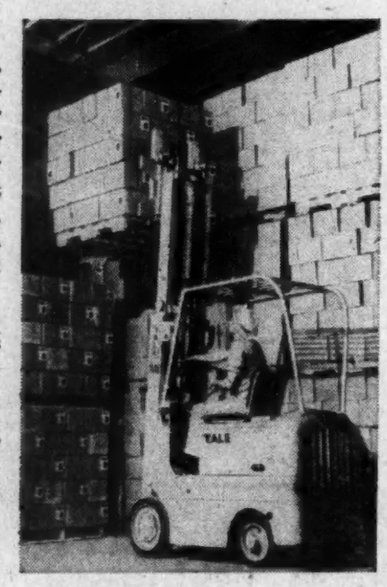

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COMPANY REPORTS

To assist readers in appraising and comparing company financial statements, The Financial Post has a uniform method of presenting corporation accounts. Variations from the companies' published reports are footnoted.

Public Utilities

NORTHERN TELEPHONE CO., New Liskeard, Ont., net profit of $199,750 for 1953 was 57.2% higher than 1952 net of $127,095.

Increase in gross revenue would have been more substantial if business had not been seriously affected by mine strikes in Timmins, Noranda-Rouyn and South Porcupine. Expenditures showed a decrease, reports President F. L. Hutchinson.

A net gain of 1,128 telephones took place in 1953, although four gold mining centres had a decrease. No new exchanges were opened in 1953, but early in 1954 small unattended unit-type dial exchanges were cut in at Belle Vallee and Milberta.

Capital expenditures last year totaled $301,201. Expansion of facilities at Atikokan is to be carried out in 1954, including opening of a new dial exchange. An offer has been made by company to acquire the municipally owned Fort Frances telephone system.

At year-end, dial telephones represented 3.9% of total in service, compared with 3.6% at end of 1952. Company has 480 employees, a decrease of 33 on the year.

INCOME ACCOUNT

Years Ended Dec. 31:	1953	1952
Gross earnings	$1,832,443	$1,727,402
Net earnings	634,653	490,780
Less: Deprec.	186,499	173,454
Deb. int.	22,200	22,308
Deb. disc. & comm.	1,125	1,125
Int. & exch.	8,981	1,853
Income tax	216,107	174,145
Net profit	199,750	127,995
Less: Dividends	80,000	80,000
Surplus for year	119,750	47,995
Times Bond Interest Earned†:		
Before deprec.	28.13	22.33
After deprec.	19.73	14.30
†After all other interest and discount.		
Earnings per Share and Dividend Record:		
Earned	$0.20	$0.12
Paid	0.08	0.08

CONDENSED BALANCE SHEET

As at Dec. 31:	1953	1952
Cash & dom. bds.	$130,000	$130,000
Accts., etc., rec.	243,064	172,197
Inventories	61,019	14,750
Total curr. assets	434,083	316,947
Const. in progress	18,755	57,037
Deb. disc., etc.	19,875	21,699
Fixed assets*	2,239,701	2,165,700
Total assets	2,712,414	2,560,681
Due bank	215,304	147,183
Accts. & tax. pay.	246,807	285,341
Other curr. liab.	46,908	71,970
Total curr. liab.	509,099	494,494
Def. credits, accr. rtgs.	7,350	7,435
Funded debt	490,000	495,000
Capital stock	1,000,000	1,000,000
Capital surplus	▪78,463	▪66,422
Surplus	627,452	507,723
*After deprec. of	1,761,130	1,614,833
▪Includes $34,564 premium on shares in co's report.		
Excess of curr. liabs. over curr. assets	75,016	167,547

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Today a seedling tree was planted on a paper company's Tree Farm.

About the year 2010, it will be a grown tree, ready to be made into paper.

For every tree we harvest, our foresters must see that *one or more trees* will replace it; so there may be an endless chain of future harvests, and paper aplenty for your great grandchildren.

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The Financial Post

Vol. XLVIII | Member of Audit Bureau of Circulations | Publication Office: Toronto, February 20, 1954 | Twenty Cents an issue, Six Dollars a Year | No. 8

Rough, Tough Bidding For Your Building Dollar

Another Year in High Gear, But More Competition For Construction Men

By HARLEY POTTER

Look for some rougher and tougher competition in the construction industry this year. Call 1954 a year of transition for the industry. And it will be a better year for the customer.

What kind of competition? What's the nature of the transition? How better for the customer?

The over-all picture shapes up this way, in bold outline:

Transition from rising costs to a leveling in costs. From a seller's market for many kinds of building construction to something closer to a buyer's market.

To accelerated interest in new methods, greater efficiency.

To a radically different home-building economy.

To a new crop of big engineering jobs that will provide new drama in national growth and development in the next couple of years.

To a heavy construction economy with a brand new competitive element on the scene: big companies from Britain who are coming here to battle with home-grown capital and skill and the U. S.-backed organizations which have been making their mark on the Canadian scene for some time now.

From the "duck soup" era for union bargainers to a period of stiff resistance to their demands.

The Detailed Outlook

Competition right now is being expressed in more bids on each job, clustered more closely to the low-bid contract winner. Some contractors claim this has reached the point where some jobs are being figured at cost or less.

With keen competition, howls of rage have come from some quarters in the subcontracting world over the practice of "bid peddling." They claim it is becoming a serious problem.

Trouble that some contractors may face in the next two or three years may be that facing some sections of manufacturing. Our potential population growth and the production that will be needed to service it have sold outside firms on investing for the future here. But, as they come in, the scene may get a little crowded.

Thus the broad outline; how does the detailed picture look?

Is there a new manufacturing boom ahead? Despite huge investments in Canadian factories, employment and production in manufacturing have been keeping pace more closely with total national growth.

Burgeoning Canadian economy is spelling big construction demand along the more "invisible" line of distribution. Distribution has long been one of the cost bugbears in the U. S. It's attendant on a big economy. A larger economy in Canada and higher income, the widening economic base and population growth mean more distribution facilities. That, of course, means buildings.

This sort of demand can be readily seen already. Alberta's oil boom brought swarms of warehouses and distributing centres to that province. They came to service the new industries there and the growing consumer market. It's a market here and elsewhere in Canada that keeps looking better. (Changing freight rates also play a more inscrutable role in western warehouse location.)

Commercial construction should barrel along at a high rate again this year. It hit the highest postwar level last year, and might equal or surpass it this year.

Electric power is one of the biggest construction items, and will continue to be so.

The St. Lawrence Seaway is big, and spectacular, And it is quite as important as it seems.

But it is actually rivaled by other construction for similar purposes. In the past three years total construction of electric stations, power plants, distribution lines, has totaled about $1 billion, plus further expenditure on dams and reservoirs.

Undeveloped hydro-electric power waits for plans to use it in Labrador, Quebec, Alberta.

Most exciting possibility is the $1 billion development proposed for the Yukon and the Northwest Territories for aluminum smelting.

Natural Gas Spurt?

It's a year of transition in construction of chemical plants. The big postwar wave of investment has just about finished, except for a few projects. The big petrochemical plant at Edmonton has announced a 25% expansion to start this year. A new wave may follow later, likely in 1956.

This year may mark entry into a new gas economy for Canada, if construction gets under way on the Trans Canada Pipe Line to bring gas from Alberta to Eastern Canada.

This year could see work on the West Coast gas line too, taking gas to the U. S. via Vancouver.

A new oil refinery will be started this year at Montreal, and a start might be made on a Halifax refinery for completion next year.

Some big achievements in the past year have included Kitimat, where the first aluminum ingot will be poured this year, the iron ore railroad in Labrador which will roll this year, the Lynn Lake railroad which is now complete, the Trans Mountain Pipeline which has brought oil to Vancouver, the big Granville St. bridge just opened in Vancouver, the metallurgical plant completed at Fort Saskatchewan in Alberta.

Housing outlook is muddied by the fact that government mortgage insurance and lending by banks are strange and untried. (See accompany.)

Institutional building is strong. Need for schools may slacken somewhat in the years ahead, but over the long pull rising population means many more are needed.

Churches, a kind of construction no one thinks of as being important, have been built at a rate of $25-30 millions a year recently. A population growth of 10 million might require $300 millions of new seating capacity.

For highways, at least $450 millions should be spent each year to make any sort of dent in the backlog.

Expenditures have been running just below this minimum national need—$415 millions last year. They will likely be about the same this year.

Defense construction appropriations for armed services this year will be about $178 millions, or about the same as last year. Defense Construction Ltd. has indicated expenditures this year will not be far short of last year. About $40 millions uncompleted work is now under contract.

There will be a shift of emphasis in armed services housing activity to married quarters.

A start will be made on the Army's giant Camp Gagetown project near Fredericton. Roads and utilities will go in, a start will be made on buildings.

Public works will loom in some cities. Vancouver and Winnipeg are each getting multimillion dollar new post offices.

Building costs should be approximately stable in 1954. Some material costs look like being lower. Lumber prices are now below a year ago.

Supply of building materials should be more plentiful than at any time in the postwar period.

Most kinds of steel which construction uses are available freely both from mills here and in the U. S.

Cement can be expected to be in improved supply, but not in all regions. Some may see peak-season shortages as before.

Construction wage rates will no doubt rise in a few communities. Many are protected by two-year contracts that don't call for re-negotiation till 1955. Average increases in trades getting them this year aren't likely to exceed 5c an hour.

With the mood contractors are in, it will be a rash union leader indeed who threatens a strike too seriously. He might find himself picketing for a long time.

Technological Change

New methods—The industry is pregnant with technological change. There are many new ideas, some of which will get nowhere, others of which will find a proper but limited niche, and maybe some that will take over big segments of all construction work done.

Canadians rank as relatively conservative in construction engineering. They want to be sure methods are safe before they try them.

But just the same there is experimentation and change in construction here.

Prestressed concrete is gaining new interest. Precasting of concrete is being fairly widely practiced now. There's interest in new methods in steel construction.

The wood industry, important to Canada's forests, is taking a new lease on life with glue-laminated beams and other advances.

In housing, it looks as if prefabrication may eventually get somewhere. An unknown but good number of houses are prefabricated now, and the outlook is for an increase.

The traditional role of the architect, engineer and other designer in building is at least threatened in a degree in parts of Canada by "package" builders.

The idea seems to have come with the big U. S. construction firms. Some big Canadian firms now do it. It is getting increasing attention from Canadian builders.

It means offering the whole building, design and all, in one deal. The builder's own employees replace the independent architect or engineer.

Another version of this is the "package" deal on the small general purpose plant offered by the real estate investor, speculator type of businessmen.

There's an undercurrent of new approach to tendering. Many large subcontractors are in favor of separate calling of separate bids on mechanical trades — instead of including the subtrade in the general contract.

There is pressure in this direction. General contractors oppose it, however. They say costs run way up if a general contractor doesn't have full responsibility for getting all the subtrade work done himself.

Also, if the separate bid practice grows, there's a growing temptation to general contractors to launch subcontracting subsidiaries of their own.

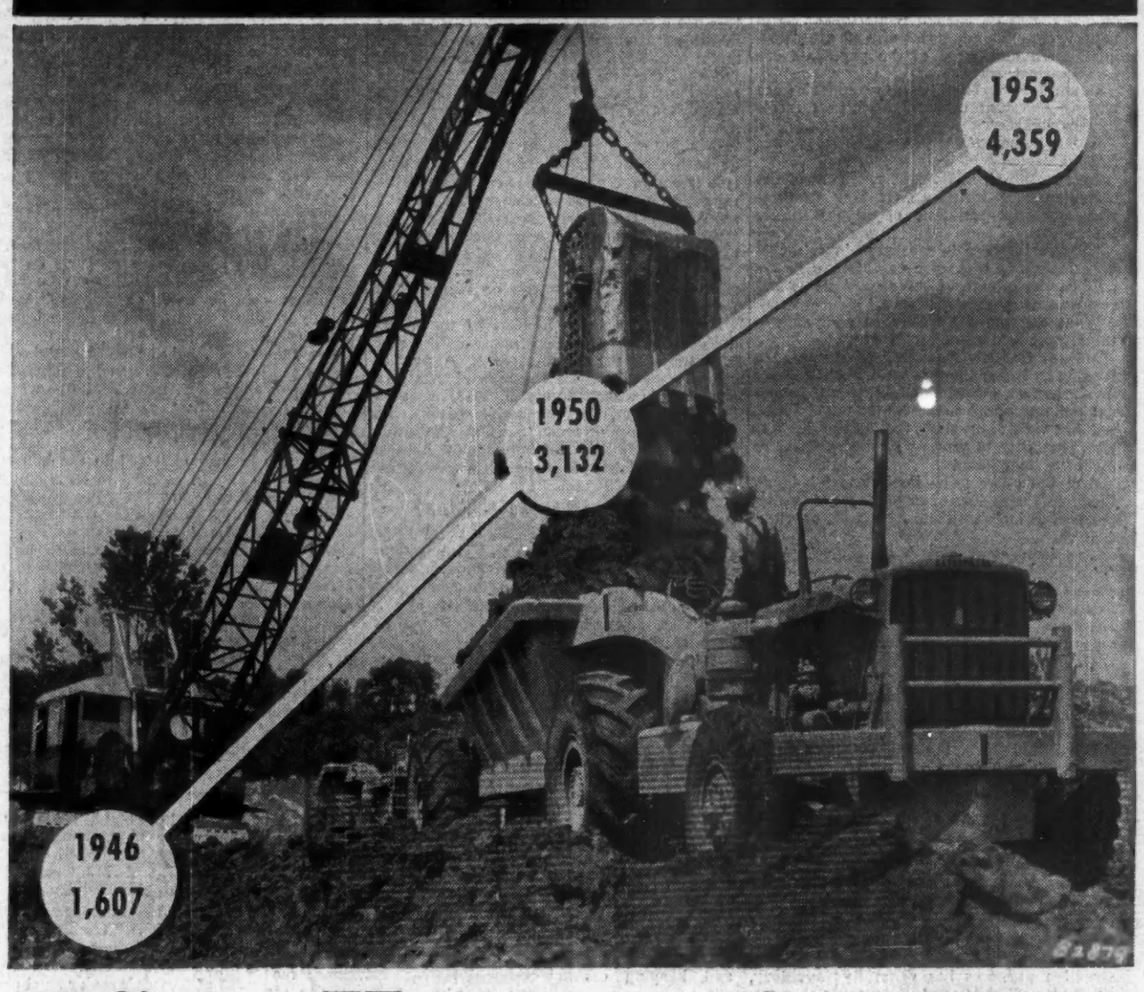
The prospect of a big load for the construction industry to carry raises one troublesome point.

Skilled building tradesmen are not being trained in numbers enough to replace deaths each year. The census found that 43%—nearly half—of all carpenters are over 45 years of age. That startling figure compares with some 34% of all male workers over the same age.

Only two answers are possible: step-up of apprentice plans, something the industry is trying hard to do without great success; and more immigration. We lean heavily on immigration to give us our building and construction labor.

The Rising Tide in Construction Spending

Figures include repair work: $ millions



The Big 'If' in Housing for 1954

How Much Money Will the Banks Make Available for Mortgages?

By JAMES JOHNSTON

The big housing "if" of 1954 is whether or not the banks will be able to, or will have time to, put very much mortgage money into residential construction.

Life insurance companies, trust and loan companies, the traditional sources of most of the nation's mortgage funds, have about reached their limits. Under new legislation working its way through Parliament, the chartered banks will be permitted to lend on mortgages. What will they be able to do?

In any assessment of Canada's housing story and what a few busy building years have done, go back to 1947 and look at the sad story of shortage found in any newspaper want ad section. It helps to put today's needs into perspective.

"Expecting stork in March. No place for him to land . . . ," "Veteran just out of hospital . . . ," "Six months' rent in advance . . . ," "Quiet widow . . ." So ran the ads day after day.

On one chill Friday in February 1947, 119 ads in the Toronto Star pleaded for apartments. Only nine apartments were offered for rent, and none of them was suitable for more than two persons.

Today?

On a similar Friday night two weeks ago — and seven years later — the same newspaper had 419 apartments for rent ads against 67 apartments wanted.

Nobody bothered any longer to claim such priorities for tenancy as "non-smoker, abstainer," or "elderly couple" or "respectable, refined," or "professor and wife." Nor did anyone feel inspired to grandiose offers of "Money no object," or to worrisome moans like "Wedding bells won't ring unless . . ."

The landlord is off his throne, and has been reduced to a stature at least as low as that of a duke.

And the housing "shortage" which can be as large as infinity or infinitesimally small depending on one's views — at least is not as critical as it has been.

There are, however, many areas where houses are in short supply — at the right prices.

D. B. Mansur, president of government-owned Central Mortgage and Housing Corporation, says Toronto's housing situation is still acute; since 1946, it "may have deteriorated a little, although I must say it is not as difficult to find a house or apartment to rent there now as it was then."

Montreal, he told a House of Commons committee, is "by far the best of the metropolitan areas." Housing starts, relative to population, are far above the national average in that city.

One in Five

Since the war, 700,000 new dwellings have been completed in Canada. Today, one in five Canadians lives in a postwar house or apartment.

Last year was the country's biggest building year. Over 102,409 housing starts were made. Over $1,000 millions — or one fifth of the country's total investment outlays — went into housing.

How about 1954?

The construction industry could produce 125,000 houses annually, perhaps many more. But they could work themselves right out of jobs too. For that many additional houses could not be sold at present or even higher price levels which would make them profitable to build. In the strict economic sense, in most of Canada, demand and supply of houses is in fairly even balance right now.

Houses are selling. But outside of the lower-price range it takes longer to get the asking price. In 1953, on the average, new houses were taking between three and four months to sell, as in 1952, but about a month longer than in 1951.

One small builder sees the outlook this way, "I'll be building houses this year, but they won't be over the $15,000 class. The $17,000 and over takes too long to sell. I don't want to risk having my money tied up and having to heat them through next winter."

Where's the Money?

Basically, the demand for houses boils down to one thing: Who's got the money — individually to make the down payments, collectively to underwrite mortgages? And behind all this are the economic facts of life — the physical needs of Canadians, how much the market has been saturated, what is the family formation level, how old are the present houses?

But the money side is the critical side. Give the people the money and the demand for houses could go on forever.

Looking at the money side, where does it all come from?

Sure, the old cow pasture down by the river makes a lovely subdivision. And there's nothing quite like those dream-houses in the woods. But who pays for them?

Over half of all houses built in Canada would never rise higher than the anthills without mortgage help of some sort. In 1952, there were 86,000 housing starts and 46,000 mortgages from lending institutions alone. Over 50%, without counting private mortgages.

This is where the funds for new housing have been coming from, according to CMHC:

NEW HOUSING FUNDS

59 cents—From Owners	28 cents where owner paid full price of house.
	31 cents where owner paid part of price and mortgaged the rest.
28 cents—Mortgages	21 cents from lending institutions — insurance companies, trust and loan, loan, etc.
	7 cents—private.
13 cents—Governments	5 cents—joint loans under NHA.
	4 cents—direct mortgages.
	4 cents—direct Government housing.

Can Banks Provide?

The traditional lending institutions just haven't got the money to keep on expanding mortgage loans. The life insurance companies, the trust and loan companies are up to their limits.

Can the banks fill the gap under the new legislation? Can they pump in enough money to keep the level of housebuilding high?

With the new housing act, the joint-loan provisions for the lending institutions will be cut off. No longer will the Federal Government, through CMHC, be providing 25% of the mortgage loan. The lending institutions will be providing themselves, 100% of every mortgage loan they undertake. Their money won't go as far as it has. The banks will have that gap to fill.

The new legislation is before the House of Commons. Can it be enacted in time to let the banks set up their mortgage-lending system? Right now is the time building for the coming season is being planned. There will be only a few months to get the new money into circulation.

There are some added considerations:

—Until the law and its regulations are made clear, it will be somewhat difficult for a builder to get a commitment for any large project. With the joint-loan provision expiring, the lending companies and the builders themselves are hesitant in tying themselves up, before seeing the effect of the new law.

—The banks at the present time are fully loaned up. While their assets are close to $11,000 millions, and have been increasing rapidly — $500 millions last year alone—will they want to put much of this increase into mortgages? Will they have the time to do it in the 1954 building season? Can even 4,000 bank branches be made aware of new regulations and set about lending money under them which they have previously been prohibited from doing?

—Part of the increase in bank assets must go for extra normal business. If there is to be a major increase in mortgage funds directed to housing through the banks, there will have to be an expansion of credit. Does the Bank of Canada plan such a move?

The Bank is to be given the power to advance money to the chartered banks on mortgages just as they now do it on government bonds. That is, there could be a credit expansion based on the mortgages.

It would depend, of course, on the current economic situation whether or not any credit expansion would lead to inflation. So far, the Bank of Canada has not shown its hand. It can expand credit either by lending on the banks' mortgage paper or by buying government securities from the public. If it buys securities from the public, Bank of Canada money is put into the hands of the public and eventually the banks, which in turn can use that money as reserve money and extend credit on it.

In theory, at least, a Bank of Canada purchase of a $1,000 bond from either an individual or a chartered bank could lead to an expansion of credit of $9,000. So that the $1,000 actually ended up a total of $10,000. This control of credit is very apparent. And coupled with the Bank's persuasive powers, is very effective.

Will the banks themselves want to lend on mortgages? When the measure was first announced in October, the reaction was rapid and most of it against. A banker values his liquidity.

To safeguard liquidity this new law has a mortgage insurance scheme. As well, of course, the mortgage loans can be sold to Central Mortgage.

By annual report time the attitude of the chartered banks had mellowed. James Muir, president of the Royal Bank, said the proposed legislation "has met with a somewhat mixed reception. Some say that bankers are rather notorious for resisting change, but we hope we escape such criticism. Frankly, we believe that if the machinery is set up properly a useful job can be done and certainly it will be our aim to give the new plan our fullest co-operation in the honest endeavor to make it successful."

Bankers could hardly be expected to be over-enthusiastic about the new legislation. They all stress their liquidity requirements, that people put their money in banks and usually expect to get it on demand; therefore, most bank loans should be of a short-term nature, continually maturing. Mortgage loans would tie up credit for some 25 years. Bank credit expanded could not be contracted for a generation. But, as Bank of Toronto President B. S. Vanstone points out, there is a hard core of savings deposits which in effect form personal reserves likely to be called for only in personal emergency, "it may be that the banks can, without undue risk, depart from total short-term liquidity to place some small portion of these funds in well-secured mortgages and thereby be in a position to perform a public service by filling such gaps in the market for housing capital as existing financial agencies may not quite cover.

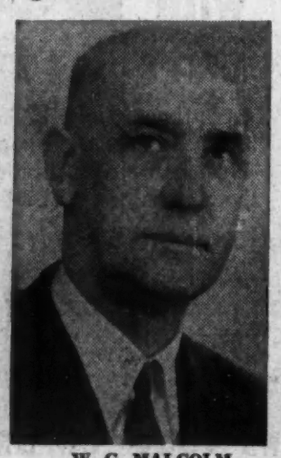
"Obviously, the extent to which this can be done will depend on the degree of liquidity that the Government is willing to make available if and when necessary, and it is only to a moderate extent that it would be prudent to tie up the funds of Canadian depositors in long-term, fixed investments.

"The banks must keep themselves in a position to take care of demands from de-

(Continued on page 34)

These Are Top Men In Canadian Construction Association

RAYMOND BRUNET, O.B.E.
President,



W. G. MALCOLM

A. TURNER BONE
National Vice-Presidents

S. D. C. CHUTTER
Acting general manager,

The Big 'If' In Housing For 1954

(Continued from page 33)

positors and fully look after the requirements of trade and commerce."

The companies which have traditionally been the big suppliers of mortgage funds have been "loaned up." Take the life companies, for example. Since the war they have increased their mortgages (85% of them residential) from 10% of their assets held in Canada to over 30%.

They have switched out of Government bonds into mortgages. In 1946 a group of 10 life companies in Canada had 57% of their total Canadian assets in Canadian Government bonds. By 1952, that had been reduced to 22%.

In proportion, they invest more in mortgages than in the U.S., where the rate ranges from 26% to 28% of assets in that country. As well, all principal repayments on mortgages go back into mortgages. And now that outstanding mortgages are "ageing," more and more of the payments are principal payments.

Generally speaking, the life companies are putting one half of their additional assets into mortgages.

But at some spot the rate of increase has to stop.

Last month G. L. Holmes, president of the Canadian Life Insurance Officers' Association and vice-president of Manufacturers Life, said:

"Future increase in mortgage investments will depend to a greater extent than in the past on the growth of companies' assets and repayments on existing loans."

What can the life insurance companies—the biggest lenders—do in 1954?

Mansur fears the "possibility" of mortgage lending by life companies falling below 1953's level. In fact, even in 1953 he says "to some degree" operations under the National Housing Act were limited by the lending institutions' inability to provide sufficient funds to meet the joint loans.

And the other large institutional lenders, the trust and loan companies, are in no position to increase their mortgages substantially.

The loan companies have over 71% of their assets in mortgages. The trust companies have 26% of theirs. Their particular natures hardly permit any great expansion Like the life companies, they can expand only if Canadians put more savings into their hands.

The lending institutions just haven't got the money. Something more had to be done if 1954 is to be a building year of the 100,000-dwellings size.

From this grew the proposal to let the chartered banks lend money on long-term mortgage loans, a practice common in the United States but never before permitted here.

The New Law

The physical demand for houses should be higher because of the new law. It lowers down payments and extends the payment period to 25 years, so monthly payments are smaller. At the same time it puts at least part of a lid on the price of houses.

The life insurance and other traditional mortgage lenders will go on doing their own appraisals for mortgages for their own loans. But CMHC will do the appraisal work for the banks.

As well, the amount of the loan is to be a higher percentage of lower-priced houses to make it relatively easier to finance them.

However, the maximum interest rate has still to be set. And on a longterm mortgage this has a magnified effect on the size of the monthly payment. Today's interest rate under joint NHA loans is 5¼%. It is generally felt that the rate will have to be higher to attract more money into housing. However, fractions of a percent sometimes are overemphasized. As one banker told The Post, "It's a lot more important what regulations go with the law than that the interest rate is a fraction higher or lower. Within the range of one per cent at least, administrative requirements, and how satisfactory are the liquidity provisions, are a lot more important to us."

Under the new law, a maximum interest rate will be set which can be varied from time to time by the Government.

At the same time, because of the mortgage insurance provisions, more of the risk is taken out of the mortgages. A private company requires, for the sake of safety, a good-sized owner's equity in the form of a down payment. Yet for social reasons, the Canadian people have decided that this country needs low down-payment houses. The only answer is some government insurance plan.

How Many Houses Needed?

From the economic standpoint, build a few thousand more houses and they will go unsold at present price levels. We could say then there was a surplus of housing. But cut prices a little, or raise incomes substantially, and all those houses would be snapped up.

From the social standpoint, how many new houses could we use? There are some 3.6 million homes in Canada, mansions, apartments, shacks beside the railroad tracks where some family lives. Conceivably every homeowner would like to buy another house. Make the project attractive and—unless he's an antiquarian—he'll even offer to destroy the old one—just as time, weather, termites and kids have gradually been doing for years.

How many houses do we need?

Some people say we are just as badly off now as we were at war's end. Few would agree.

Says R. E. G. Davis, director of the Canadian Welfare Council, an annual goal of 130,000 new homes is "exceedingly modest" when viewed against the number of people who are doubling up at present, the rate of family formation, and the rate at which old houses are going out of use.

So far we've hardly considered the old houses going out of use. Despite our recent building spree the average age of a Canadian home is still over 30 years. Many of these would be exchanged for new models if prices were attractive. And, in fact, the older houses have recently been falling in price relative to the new.

Actually, a building year of 100,000 in time should relieve any critical housing shortage. Family formations in Canada were 91,000 in 1952, compared with 99,900 in 1951. They are likely to be down for a few years as marriages are declining because of the dearth of today's teenagers born during the depression thirties.

Working in the opposite direction is the trend to larger families. More and more families are having second, third and fourth children. This is putting a pressure on the little bungalow bought just after the war. If prices can be held, or reduced, these people are likely to move on to larger homes at the earliest chance.

But the social need for more and better housing is just one of the growing pains of a bustling Canada. There's nothing wrong with this country except indigestion, stomach-aches because we've been trying to eat too much too quickly.

And this is soon reflected in the housing story, which should be seen in its complete form. "Housing is not just four walls and a roof," says Jules Fortin, secretary-treasurer, Dominion Mortgage and Investments Association. "There are new schools to build, streets and street lights, and garbage to be collected, and a lot of other things. And somebody has to pay."

All this is being done at the same time that Canadians are trying to pay for a lot of other things as well—a heavy defense effort, a fantastic expansion of industrial capacity, and an ever-increasing standard of living demanding more food and cars and comforts of life than ever before.

But for which, like houses, somebody has to pay.

$23 Million Canso Causeway Ready For Traffic By Sept.

Construction history is proceeding well ahead of schedule in the swirling waters between Cape Breton Island and Nova Scotia.

Traffic is expected to start moving across the Canso Strait Causeway in September of this year. The unique route will provide a new avenue of Maritime commerce in linking the Island to the province — thus eliminating the bothersome ferry bottleneck.

The $23 million project got under way in September, 1952, although it has been talked about for over half a century. Only Scotland's Scapa Flow Causeway and one project in India can match the spectacular engineering feat this undertaking represents.

By the end of 1953 over 5,500 ft. of the roadway across the Strait of Canso had been built, out of a total length of over 7,000 ft. It is estimated that about 13,000 tons of rock are being dumped into the waters every day. Construction can be divided into four main phases:

—The Canadian National Railways has had to build a 14-mile diversion from its main line at Linwood to the southwest side of the Strait, as well as rehabilitating a four-mile line at Inverness Junction on Cape Breton. This, plus the building of a new railway station at Havre Boucher, have been estimated to have cost around $2.6 millions.

—As ships will still pass through the channel, a navigation lock including a lift bridge and breakwater will eventually be put into the Causeway. This is being built by T. C. Gorman (Nova Scotia) Ltd., Halifax, under a $4.8 million contract, the lock will be 860 ft. by 80 ft., similar to that of the Welland ship canal, with sector type gates.

—The Nova Scotia Government has undertaken to relocate its highways on both sides of the Strait with elaborately conceived approaches and railway crossings — costing close to $1 million.

—The Causeway itself is being built jointly by Northern Construction Co. and J. W. Stewart Ltd., Vancouver. This is a $5.8 million contract. It is estimated that over nine million tons of rock will be required to complete the fill. The rock is obtained from nearby Cape of Porcupine, where it is drilled and blasted and loaded on 40-ton trucks by electrically powered shovels.

The Canso Causeway will, on completion, stand about 20 ft. above the water line, with its 80-ft. surface providing for a single railroad track, a highway built according to Trans-Canada highway standards and a six-foot walk for pedestrians. The Causeway curves diagonally southwest and northeast. Total cost of $23 millions is being divided between the Federal Government, and Nova Scotia, the latter paying about $5.5 millions. Costs are allocated as follows: Causeway, $9.6 millions; navigational lock $5.6 millions; surveys and borings $100,000; engineering and contingencies $3.1 millions; interest during construction $1 million; and railway and highway relocations $3.4 millions.

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Steel Supply Now Equals Postwar Demand No Shortages To Delay Building In '54

For the first time since prewar years, supply of steel for construction purposes has generally caught up with demand. Prospect for 1954—no shortages, except in isolated cases, and little delay by steel mills in filling orders.

The material supplied in Canada — plates and angles that go into light structural steel as components—is readily available now and is expected to remain that way throughout the year. The heavy rolled material—I and H beams—is imported from the U. S. since Canadian mills do not have large enough rollers; the supply is expected to be fairly easy though with some individual shortages.

Biggest demand in the U. S. finished products line is for wide flange beams while demand is also brisk for steel plate.

In Canada, there has been a sharp change in buying habits over the past few months with supplies becoming more easily available and buyers digging into inventory, and keeping orders closer to needs.

The situation has changed so much that some mills now are open for orders of hot rolled bars, pig iron, hot rolled sheets and a few other products for delivery in the first quarter of the year. This is a far different situation than a year ago when order books were all but closed for the second quarter.

Demand for cold rolled sheets from Canadian mills continues fairly heavy and while orders for the second quarter have not been submitted as early as in previous years, it is expected that mills will be operating their cold rolled mills at almost full speed for at least the remainder of the first half of the year.

The item in shortest supply in Canada now is galvanized sheets and it appears that allocations will have to be continued.

Some downward revisions have been made in the base price of hot rolled bars, heavy plate, hot rolled sheets, cold rolled sheets, porcelain enameling sheets and galvanized sheets. However, increases on extras mean actual selling prices in many items are actually slightly higher.

The supply of mild steel products from European mills is good and the latest increases in Canadian mill extras makes the position of bars and structural steel from Europe even more competitive. Even before the last increase, this material was priced attractively at coastal markets near Montreal and Vancouver where foreign supplies could be unloaded directly from ships and where there were heavy freight costs on material from Canadian mills.

Now the European shipments may attract interest in the Ontario market once navigation reopens and they can be shipped directly to Toronto and Montreal with regular shipping schedules.

Flat rolled products from European mills are still too high-priced to compete effectively, especially in the inland Canadian market.

All of Canada's major steel producers have carried out expansion programs of their own to enable them to keep pace with demand for steel from expanding firms across the country.

At Welland, Ont., Atlas Steels Ltd. has built a new stainless steel plant, the first in Canada, to produce sheets, strips and tubes. Production is expected to get under way this year. Developing from this, it is expected, will be new plants devoted to the complete fabrication of stainless steel products. Ontario Government officials estimate that at least 10 such new plants, from within the U. S., U. K. and elsewhere in Canada, will be established within the next two to three years.

Since the end of the Second World War, Dominion Foundries and Steel Ltd. in Hamilton has spent approximately $27 millions on capital projects. Over the past 10 years, expenditure has totaled about $35 millions. This expansion has boosted output from 220,000 tons in 1945 to 400,000 tons in 1952.

The three projects to double cold-rolling capacity at Dofasco have been a new continuous tower annealing furnace to speed its annealing process, a 36 in. cold rolling mill and conversion of a single-stand temper mill to a double stand.

Newest project to increase capacity is a four-stand hot mill costing an estimated $4 millions. It embodies the latest in steel-making design and is now being added to the plant. It will convert hot slabs of steel into hot rolled strips hundreds of feet long.

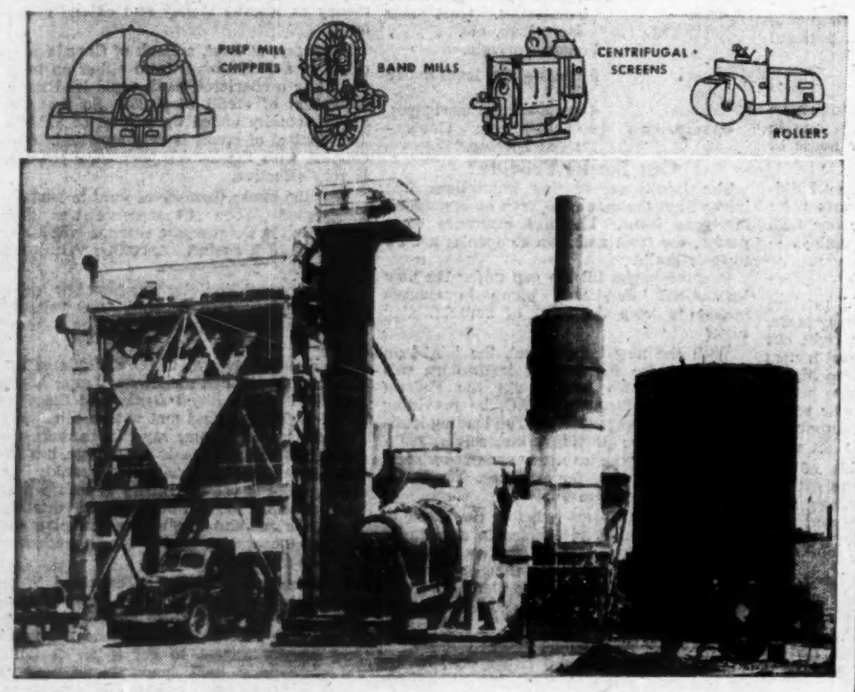
Biggest news from Dominion Steel and Coal Corp. in Sydney, N.S. was the completion last spring of a modernized 40-in. blooming mill with cost of the project set at $3 millions. This event highlights a $44 million expansion program at Dosco started in 1951 and planned to increase ingot capacity from the 1949 level of 550,000 tons to 720,000 tons.

The new blooming mill converts ingots weighing up to seven tons into blooms, billets and slabs of many shapes and sizes.

The postwar expansion program of Steel Co. of Canada in Hamilton is all but completed now with over $120 millions having been spent to increase production from 1.1 million tons in 1945 to 1.8 million tons in 1952. Ingot capacity has been stepped up to nearly 2 million tons.

Pride of Stelco is the new 225 ft. blast furnace which in 1952 began supplementing the output of the company's three older furnaces. It has a daily appetite that consumes some 4,500 tons of raw materials daily.

Expansion of production facilities at Algoma Steel Corp. since the war means that output in 1954 will be about 70% higher than 1945. Steel ingot production in 1952 was 870,736 tons, an increase of over 170,000 tons from 1945. Iron production in 1952 was 1.1 million tons compared with 650,000 tons in 1945.



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Schools: Construction's Big Postwar Challenge

How Industry Meets Demand For New and Better Schools

Building Canada's schools is big business.

The greatest boom our country ever experienced in this construction category is still under way.

In 1953, construction of new schools and other educational accommodation amounted to $127 millions. That was a slight increase over the year before, and about 20% more than the year before that. (In addition, in 1953, some $16 millions was spent on school repairs.)

Since the end of the war, more than a half billion dollars has been spent on new schools.

Why this mass production of school plant? Blame the lag in construction occasioned by two world wars, the great depression, the obsolescence of many older school buildings, and our constantly increasing population. The urban shift in population is very important too. Suburbs of metropolitan centres are seeing whole subdivisions of houses spring up where there was only cow pasture the year before. While school population dwindles in the centre of some cities, it swells at the periphery of the community in the satellite municipalities.

By any past standards school construction is likely to remain high. Babies—future students—keep right on coming. And even immigrants bring children with them in many cases.

Attack On Costs

Naturally, in view of the burden laid on educational budgets by the demand for schools, there is a never-ending search for more economical ways of constructing them. Innovations in design, building methods and equipment all undergo careful scrutiny to see that they are, if no cheaper, at least no more expensive than those they replace. The decisions reached are of vital interest to taxpayers as well as departments of education, school boards, teachers, parents and architects.

The problem is basically one of economy, not just with regard to first cost, but in maintenance and heating as well. Simultaneously, there is insistence on flexibility of plan, provision of adequate, well-lighted space and facilities for the efficient communication of knowledge. Consideration must also be given to health, comfort and convenience.

Solutions to this problem have resulted in the most exciting, stimulating architectural achievements in years. Uninhibited by slavish devotion to outmoded traditions, modern design appears to have been accepted on purely logical grounds; it provides more building for less money. This fact is recognized by even the most conservative school trustee, the very man who ordinarily might be expected to rail against "chicken-coops" and "upside-down ferry boats."

Oddly, perhaps, the modern school has been evolved by many different architects practising in many parts of the country. Somehow, though working independently, they have produced a co-ordinated result. To bring you a first hand report, The Financial Post asked 10 of them to act as consultants in the preparation of this article. Each is a specialist in the field of school design:

R. A. D. Berwick (Sharp & Thompson, Berwick & Pratt), Vancouver.

Murray Brown (Murray Brown & Elton), Toronto.

Burwell R. Coon (S. B. Coon & Son), Toronto.

James H. Craig (Craig & Madill), Toronto.

Robert R. McKee, Vancouver.

A. Leslie Perry, Montreal.

H. H. Roberts, Westport, Ont.

G. Leslie Russell (Green, Blankstein, Russell & Associates), Winnipeg.

Robert D. Schoales, London, Ont.

Leo E. Venchiarutti, Toronto.

Here are their replies to questions asked by The Post:

Give Better Value

Do taxpayers get as much value for their money in today's sprawling, one-story school as they did in the multi-story school of, say, 40 years ago?

BROWN: No one who has studied the schools of 40 years ago and compared them with our present efforts can be in doubt as to the superiority of the latter. Hygienically, in ease of operation and supervision, in lighting—both natural and artificial, in ventilation and economy of heating, to say nothing of a more cheerful atmosphere and a less institutional appearance.

VENCHIARUTTI: In considering the economies of design, it's not sufficient to compare the cost of the one-story modern school on the one hand and the multi-story school of 40 years ago on the other. More than that is involved. Actually all aspects of contemporary education come into play.

The schools of 40 years ago had wood floors and wood partitions and wood stairs and a wood roof. These items even today represent the primary saving in the initial cost of any building. Municipal bylaws will permit wood interior framing only in single story structures of a public character, like schools. This one fact alone reduces the unit cost of construction. The saving is offset to some extent depending on land cost due to greater land coverage.

At the same time there are other factors, such as ease of circulation, safety and clarity of planning which must be taken into account. Consideration has to be given to life expectancy and the allied evaluation of obsolescence, flexibility for future use, maintenance, possible replacement of parts and addition of new components. These all effect the initial expenditure on the building and must be analyzed in the original planning stage. In any case, future use is almost as important as present use.

In Ontario, latest recommendations indicate that elementary education will be carried out in two stages instead of one. The trend, therefore, is to reduce rather than increase the size of schools.

The one-story school is the most economical solution. The age groups of the children will be more uniform and thus the requirements will permit standard solutions. The question of the multi-story school is a metropolitan one. Since we are no longer concerned with centralization but rather with decentralization, the smaller unit remains the practical one. Another drawback of the large school is the concern with segregation of the students according to intelligence quotients rather than provision of individual attention as in schools of smaller attendance.

Controversy revolving about the choice of single or multi-story schools should not exist, because the total evaluation of the particular school site results in the right solution of its own.

COON: We demand things that cost money: acoustically treated quiet classrooms with attractive sanitary floor and wall finishes and comfortable seats and desks. We must have arrangements for visual education and there must be a public address and inter-communication system, an electric program clock system, attractive restrooms for the teachers, administrative offices, nurses rooms, lunchrooms and cafeteria, and bright, clean playrooms designed for use in community activities.

PERRY: Today's architects have eliminated frills as much as possible and have concentrated on improving teaching and learning, seeing and community use facilities of school buildings.

Application of light-weight construction principles can save money compared with old-time practice. Expensive bricks and costly methods of laying them are less and less used. Solid brick walls are now replaced by cheaper block-backed construction. New types of long spanned roof construction, such as open web steel joists, are less expensive than heavy reinforced concrete.

At the same time, there is justification for examining the cost of some of the items added to modern schools. This difference is due to larger rooms, superior equipment, lighting and heating and additional facilities.

Rooms about one third larger than formerly necessary are now essential because of changed teaching methods and the necessity of providing space for project work. The new movable furniture also requires more room, and seating the children singly takes more space than seating them doubly.

Nutrition needs have required most schools to have kitchens and dining rooms, facilities not often seen in older schools. Well equipped classrooms now have their own wash basin and drinking fountain. Better lighting has resulted in the demand for three times as much electric power. The actual lighting fixtures are three times the cost of those common years ago. Sound correction in the form of acoustical ceilings is necessary in many locations.

Teachers need more storage space. Classrooms require large pin-up boards as well as chalk boards. Then there is the cost of such things as audio-visual systems and oil-firing equipment. Stages are usually a "must" in conjunction with all gymnasiums, as these rooms have to be suitable for community use. Such space with its lighting, curtains etc., is a substantial item.

BERWICK: The two-story school is far from passé in British Columbia, but it is a very different structure from the type erected 40 years ago.

Outside Number One fire areas, frame construction is almost universally used, a sensible arrangement in view of the adequate timber supply. New principles of light truss design have been developed to the point where a large building can be put up with no timber larger than 2 in. by 6 in. This fact saves labor and material.

How Many Stories?

Mr. Berwick's remarks indicate that the vote is not unanimous in favor of the one-story school. What do you think, and why?

RUSSELL: The question as to the saving of a two-story building over a one-story one is related to size. Few elementary schools have more than eight classrooms. A two-story building would, of course, require two stairs, so that the cost of the stairs and the space they occupy might eat up most, if not all the savings achieved by double-decking. In a larger building the savings might become worth while, up to a maximum of perhaps 10%. So much of the cost is involved in windows, doors, interior finish, plumbing and heating, all of which, with the exception of heating, do not alter whether the building be one-story or two.

CRAIG: Where the site will permit, the modern school of from eight to 16 classrooms should be a one-story building without basement. Compared with a two-story building, additional expense is incurred in the larger foundations, roof areas and longer travel for heating and plumbing pipes. However, there are compensations in the elimination of costly fire-resistant stairs and stair halls, and in the duplication of toilet facilities and other services.

The one-story school building provides easy supervision, ready access to play spaces and escape in case of fire. Frequent climbing of stairs, injurious to some young children, is eliminated, along with the cleaning and maintenance of these areas.

McKEE: The hazards of fire and accidents are strong factors in reducing the number of stories and thereby eliminating stairways. The educational program and the emotional setting for children is enhanced by a one-story structure, the architecture of which can be more inviting and less forbidding and institutional.

Also, it may be found from experience that due to recent development of modular co-ordination and standardization of materials and design, the cost of the one-story school is in most cases no greater than the cost of the conventional two-story school. In fact, in many cases it is proven less costly, where more effective and economical construction processes are used in its design. The one-story building, of course, requires more land, since it must be spread out over a greater area, but the site cost for outstanding school buildings is a relatively minor one.

ROBERTS: The decision to build one or two stories is purely a mathematical equation which must be applied to each individual school plan.

Most school plans can be divided into three main areas: the administrative area with a nine-foot ceiling height, the gymnasium or playroom area with a 14 ft. to 24 ft. ceiling height, and the classroom area with a 12-ft. ceiling height. Obviously, the administrative area should not be grouped with the classroom area, because the difference in height would result in wasted space. And since the gymnasium or playroom should be isolated, it is apparent that the classroom area is the only one to which the one- or two-story question applies.

Two classrooms represent a reasonable unit for comparative analysis, bearing in mind that corridor areas are the same in all cases.

Assuming that classroom floors on grade are concrete slabs, and classroom floors not on grade are concrete slabs on steel joists, it can be seen that the analysis is a direct comparison between the relative costs of the foundations, floor system and amount of roof. Generally speaking, walls, interior finishes and equipment are the same regardless of the number of stories.

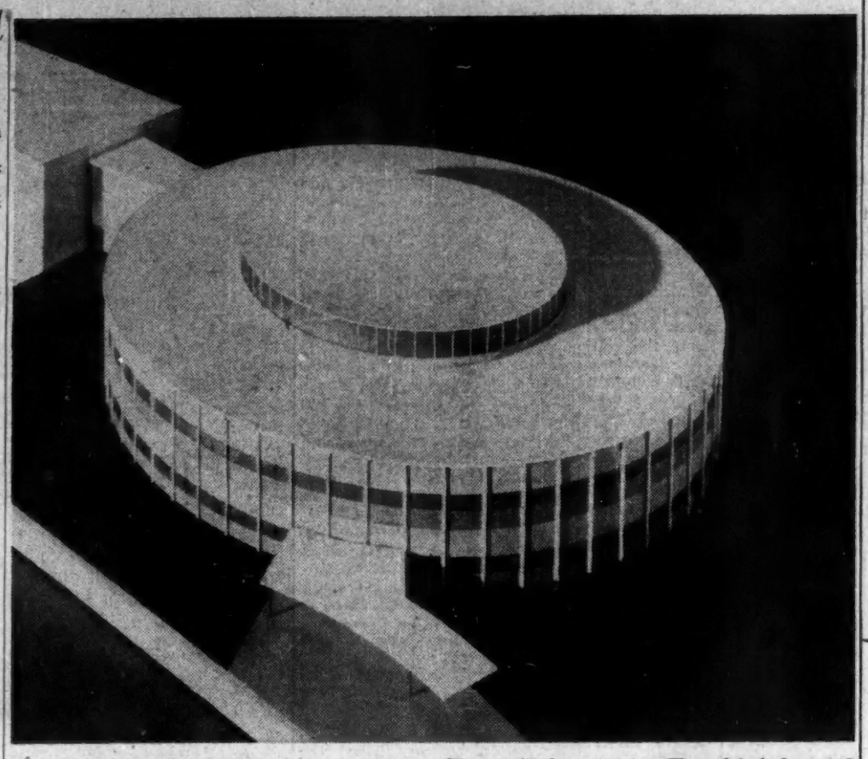
By actual contract proposals it has been demonstrated that the additional cost of one story over two is the cost of the additional foundations.

But for two stories, two staircases must be added. (Ed.: Mr. Roberts cited a case where the extra expenditure caused by staircases was not offset by the cost of extra foundations unless the school consisted of 17 or more stories.)

There are several additional points. Two-story construction will save 10% to 15% in annual heating costs because of the reduction of exposed roof area. However, a one-story school is less hazardous because stairs are eliminated and every window is a potential fire escape.

In a 10-room school, savings in fuel consumption could pay for

(Continued on page 40)



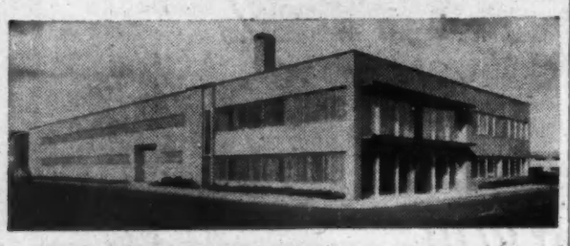
Canada's first hexekontagon school will be erected almost immediately, for occupancy late this year.

It is a 60-sided addition to Owen Sound Vocational Institute, connected to the older building by a ramp hall unit.

The advantages of this circular type of plan for this particular application are, according to architect John Layng: more fitted to the site and to the existing building; two stories instead of three; better circulation; 30% less outer wall; reduced heating load; central assembly; variation of natural light direction for different purposes. There will be some saving in costs, too.

The first floor has six standard-size classrooms, four inter-connecting science and agriculture laboratories on the south, a music room, two washrooms and two stair halls, all ranging around a ring corridor which, in turn, encloses a central assembly-cafeteria. The floor of this space has been depressed to provide five tiers of seats for 500 and the central flat area for the cafeteria will seat over 400 more or about 300 at tables. This room also has a large stage related to the music room and will be for multi-purpose uses. The cafeteria is served from a kitchen east of the ramp, so that this traffic will be separate from the school corridor traffic.

The second floor has nine standard classrooms, four of which will be for an integrated commercial department, an art room with northerly exposure, a library, two stair halls, two washrooms and a gymnasium inside the ring corridor. The ceiling of the gymnasium, being higher than the classrooms will provide clerestory lighting. The gymnasium has two locker rooms each with a 100-seat spectators' gallery over it.



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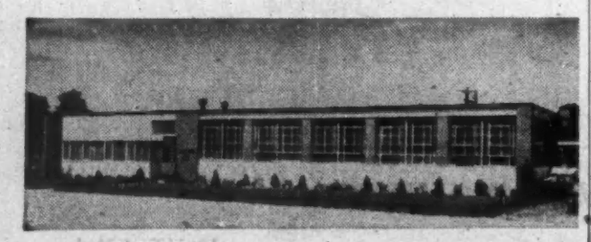

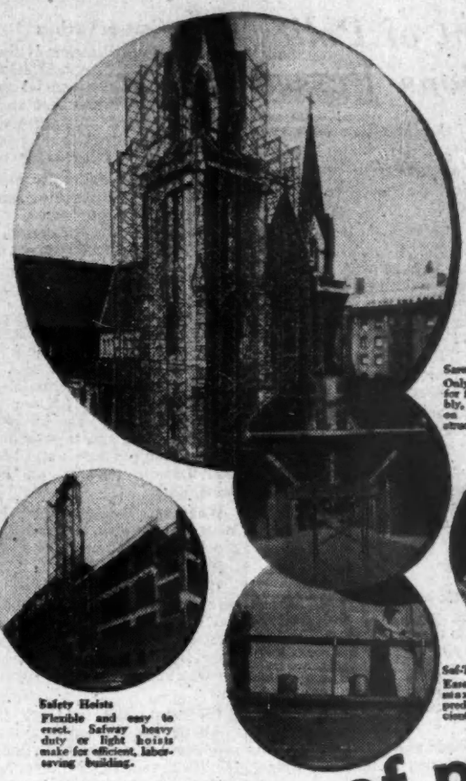

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How Construction Association Charts Its Future

Here Are Statement of Policy And New Resolutions Passed

Here is the official policy statement of the Canadian Construction Association, as endorsed by members at its convention last month in Vancouver. They also passed a number of resolutions embodying their policies in more specific terms with relation to current problems.

Labor Relations

(1) Fullest possible co-operation among management, labor and government to improve efficiency and reduce costs through increasing productivity, both in the manufacturing plants and on the construction job-sites; enlarging the supply of skilled craftsmen by increased apprenticeship and immigration programs; encouraging more adequate vocational guidance and training facilities; and participating with representatives of the major construction labor organizations in a National Joint Conference Board.

(2) Encouragement of Builders' Exchanges throughout the country to adopt the Joint Conference Board principle in dealing with Labor.

(3) Negotiation of labor agreements for effective periods of not less than two years, where possible, in order that the wage rates and working conditions effected thereby bear a more realistic relationship from a point of view of time to the duration of the majority of construction contracts.

Materials

(1) All possible action by Industry and Government to accelerate the flow of construction materials, giving particular emphasis to the processing of Canada's raw materials to the fullest feasible extent within our country and the satisfying of the future needs of our ever-increasing population.

(2) Quotation of firm prices by primary producers, manufacturers and suppliers wherever possible, particularly on projects that can be completed within a period of a year.

(3) Drafting of specifications and standards and the development of methods and techniques leading to economies in material usage.

Defense

(1) The Association's unrestricted co-operation with the Departments of National Defense and Defense Production, the Industrial Defense Board and Civil Defense Authorities.

(2) Encouragement and assistance to local Builders' Exchanges in the establishment of committees to deal with the construction phases of civil defense.

Housing

(1) Maintenance of the National Housing Act on a basis that will serve the essential housing market.

(2) Continuation of efforts to reduce housing costs through greater individual productivity, more cost-conscious design, on-site assembly line construction, modernization of building codes and research activities.

Highways

(1) Utilization of the experience of the Dominion and Provincial Governments in the construction of the Trans-Canada Highways in the establishment of a Dominion-Provincial Highways Commission to co-ordinate the financing, long-term planning and construction of interprovincial and international highways and roads designed to develop our natural resources and tourist trade and meet strategic requirements.

(2) Elimination of highway traffic hazards by means of the replacement of level railway-highway crossings with grade separations and by the standardization of highway traffic signs, markings and signals.

Tendering Practices

(1) Co-ordination and centralization of responsibility and control of construction projects under a general contractor.

(2) Draughting of tender forms so that security deposits are required only on public projects and that requests for unit prices on lump sum building projects be restricted to excavation, concrete, formwork and reinforcing.

(3) Calling competitive tenders on all construction work involving public funds, and public advertising and opening of these tenders except with regard to work in the "secret" or emergency categories.

Standard Contract Forms

Wider use by general and trade contractors, owners, engineers and architects of the standard contract, sub-contract and tender forms developed by the Canadian Construction Association, the Royal Architectural Institute of Canada and the Engineering Institute of Canada as a means of promoting greater uniformity and economy.

Research

Continued support to the National Research Council, the universities and other organizations engaged in technical investigation into the improvement and development of construction techniques, standards, materials, equipment, etc., with a view to increased efficiency and reduced costs.

Building Codes

Greater standardization and modernization of building bylaws by the Provinces and Municipalities, using the 1954 National Building Code as a guide, to make for greater efficiency and lower costs generally and in the housing field particularly.

Forest Conservation

Complete utilization of the forest resources of Canada, including action by the Provincial Governments to avail themselves of the facilities and the financial assistance made possible by the Federal Forest Conservation Act and to maintain at all times a policy of "sustained yield" management.

Community Planning

Long-term community planning to achieve and maintain reasonable standards of housing and community development through the provision by appropriate governmental authorities of adequate planning controls, personnel and facilities, especially at the local level, and continued support of the work of the Community Planning Association of Canada.

RESOLUTIONS

Housing

Whereas: The Federal Government has proposed amending the National Housing Act and the Bank Act and their regulations to permit the direct participation of private banks in the residential mortgage field and to provide for lower down payments and longer amortization periods on NHA loans, and

Whereas: These actions have in the past been advocated by the Canadian Construction Association, and

Whereas: Notwithstanding the record volume of 105,000 housing starts in 1953, the housebuilding section of the Canadian construction industry was operating considerably below its capacity, and

Whereas: The Federal Government has declared that the provision of improved housing facilities ranks second only in essentiality to the preparedness program, the extension of home ownership being especially desirable, and

Whereas: While the United States of America also attaches great importance to its preparedness program, the credit regulations concerning residential construction are appreciably less stringent there than in Canada,

Therefore be it resolved: That the Canadian Construction Association expresses to the Federal Government its appreciation of the proposed amendments to its housing legislation and regulations, at the same time urging that action be taken to facilitate an annual program of at least 125,000 dwelling units, with particular attention being given to

(1) an extension of the 90% loan provision beyond the proposed $8,000 lending value limit,

(2) the consideration of age and future prospects of borrowers in addition to their income-carrying charges ratio,

And further: That the Provincial and Municipal Governments take action where necessary in co-operating with the Federal Government in the execution of land assembly schemes under the provisions of the National Housing Act.

And further: That serious consideration also be given to:

(1) the creation of "open end" mortgages and loans to finance the purchase and rehabilitation of existing houses.

(2) the formation of an Advisory Housing Committee, as provided for in Section 34 of Bill 102,

(3) the provision of improved inspection services and due emphasis on quality of work during construction,

(4) the principle that only the underprivileged and aged should be housed in subsidized low-rental projects.

St. Lawrence Seaway and Power Development and Tariff Concessions

Whereas: Agreements between the Governments and hydro-electric power commissions of Canada and the United States of America are bringing the construction of the St. Lawrence Seaway and Power Development to a reality in the near future,

Therefore be it resolved: That in the execution of the Canadian portions of these projects the resources of the Canadian-owned and Canadian-controlled construction industry be used to the full, including engineering, manpower, materials and contracting facilities on a competitive tender basis,

And further: That the Canadian Construction Association strongly urges the Government of Canada to abolish the regulations of the Department of National Revenues allowing the importation of construction equipment into Canada on a monthly proportionate tariff basis, subject only to a special Order-in-Council, on the grounds that such regulations are detrimental to Canadian-owned and controlled construction firms and are favorable to foreign construction firms.

Special Tariff Arrangements Concerning Construction Equipment

Whereas: It is the practice of the Customs Branch of the Federal Department of National Revenue to permit American and Canadian contractors to bring in construction equipment to Canada on a temporary basis and pay duty in proportion to the time the equipment is in Canada in cases where it is claimed that suitable equipment is not available in Canada,

And whereas: Permission to import used or second-hand vehicles may also be obtained in cases where it is claimed that suitable units are not available in Canada, notwithstanding Tariff Item 1215,

And whereas: It is believed that these practices are detrimental to Canadian-owned and controlled contractors and manufacturers and suppliers of construction equipment,

And whereas: The Orders-in-Council permitting these special tariff arrangements are not made public,

Therefore be it resolved: That the Canadian Construction Association urges the Federal Government to cease these practices unless required as war or emergency measures.

Secret Ballots Prior To Strike Action

Whereas: Work stoppages in a particular company or industry may affect the well-being of large sections of our population throughout the country, thus making it especially important that votes concerning strike action do in fact represent the voters' personal feelings and considered thinking, and

Whereas: The protection afforded to voters by secret ballots in voting on important issues is fundamental to our democratic principles and practices, and

Whereas: The Provinces of British Columbia, Alberta and Nova Scotia have taken steps to safeguard the interests of union members and the general public by adopting legislation which provides for the use of secret ballots when trade unions vote on strike action, and

Whereas: The principle of secret ballots is already contained in the labor relations legislation of the Federal Government and all other Provincial Governments with reference to the certifications of trade unions as collective bargaining agents, arbitration awards or payroll deductions,

Therefore be it resolved: That this Association strongly urges the Federal Government and all other Provincial Governments to amend their existing labor relations legislation to require the use of secret ballots under the supervision of electoral officers or other public officials of a similar status when trade unions vote on strike action.

Improper Strike Action

Whereas: There is an increasingly frequent tendency for irresponsible elements in trade unions to ignore the normal processes of law and order prior to and during strikes, and

Whereas: Such action has caused serious damage to property and danger to life and has infringed upon the rights and freedom of others,

Therefore be it resolved: That the Canadian Construction Association urges law enforcement bodies, Municipal, Provincial and Federal, to ensure strict compliance with the laws of Canada in such situations and that the penalties for violations of the law be exacted at all times.

Federal Sales Tax on Construction Materials

Whereas: The Federal Sales Tax is levied on some construction materials and not on others or an exemption is granted conditional on a certain use, thus making for many artificial distinctions between taxable and non-taxable goods and causing difficulties in administration, interpretation and auditing, and

Whereas: This contention is strongly supported by studies undertaken by the Canadian Tax Foundation, and

Whereas: The assessment constitutes a "nuisance tax" since the majority of main construction materials are not subject to this impost; leads to a considerable amount of confusion and, where levied, is a factor in increased construction costs,

Therefore be it resolved: That the Canadian Construction Association strongly urges the Federal Government to extend the scope of sales tax exemption to include all construction materials.

Tendering Practice Regarding Sub-Soil Conditions

Whereas: It is the practice of various Federal and Provincial Government Departments and some private owners when calling for tenders on construction projects to furnish certain information regarding sub-soil conditions,

And whereas: Said Departments and owners place in their specifications a clause stating that all tendering parties must examine the site and obtain for themselves all necessary information for the proper carrying out of the work, and further stating that the Government or owner concerned does not guarantee any information furnished to the contractor regarding the nature, amount and class of materials to be excavated,

And whereas: The obtaining of accurate sub-soil information before tendering is impracticable:—

(a) Because for each tenderer so to do would cause unnecessary expense;

(b) Because it is usually impossible to make the necessary tests and borings within the time allowed for preparation and submission of tenders.

Therefore be it resolved: That this Association petition government departments and the national and provincial organizations of architects and engineers to amend their specifications and contract terms to provide

(a) the furnishings of necessary sub-soil information based on tests made by engineers at the direction of the Department or owner;

(b) that in the event of actual sub-soil conditions varying from the conditions described in the specifications an equit-

(Continued on page 42)

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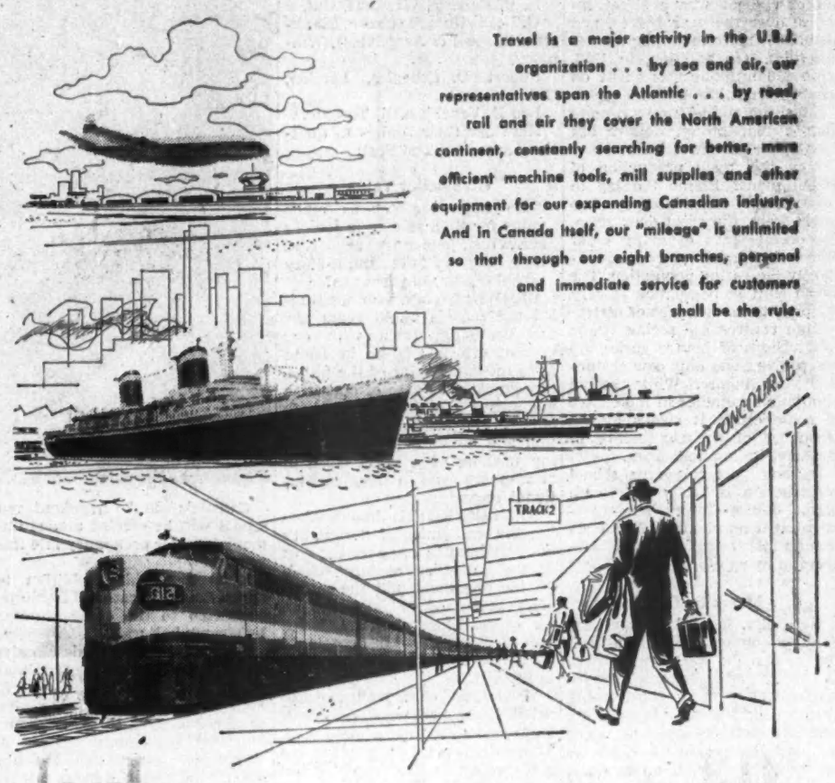

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Trans Mountain Oil's 718-mile, 24-in. pipeline snakes from Edmonton to Vancouver, flooding in a new market for the West's oil. Big construction job's costs varied from $75,000 a mile on the prairie to $130,000 a mile in the mountains. It had to cross some 60 rivers and streams, some 20 of which were major construction jobs in themselves.

Oil Gets Some 'Big Inch' Arteries

Pipelines Among Biggest Postwar Construction Jobs

Some of the biggest construction jobs in postwar Canada have been the "big inch" oil pipelines which have cut across the Continent.

Moving out of the oil capital—Edmonton — one line traveled south and west to Vancouver; the other moved eastward across the Prairies to Sarnia in Southwestern Ontario.

Certain sections of the pipeline projects comprise some of the most remarkable engineering feats in pipeline history.

The west coast line — Trans Mountain Oil Pipeline Co.—had to cut through the Rocky Mountain barrier on its way to the coast, bridge numerous fast-flowing streams.

The eastern line—Interprovincial Oil Pipe Line Co.—this summer successfully negotiated the 4½-mile crossing of the Mackinac Straits on Lake Michigan. This was the deepest water crossing ever made and posed some of the most difficult engineering problems ever encountered in pipeline building.

Now, before Canadians have quite gotten use to the magic of oil pipelines which can bring remote markets within economic range of the oil fields, natural gas experts are finalizing plans that will fully equal the immensity of the oil line projects. One line would again sweep out of Alberta eastward traveling an all-Canada route to Toronto and Montreal some 2,240 miles away. Another line would move southward out of the Peace River area in Northern B.C. and Alberta to Vancouver and thence into Washington and Oregon in U.S.

As well, thousands of miles of gathering lines in the gas fields and distribution lines to markets, will have to be built. It has been the experience with major gas lines in the U.S. that in time as the market expands and more communities are connected up, about as much distribution mileage is built as main transmission line.

The oil lines completed and the gas lines proposed could add up to a total material and construction cost of close to $1 billion of which more than one-third has already been expended on oil lines. Pipe tonnage on the two proposed gas pipelines could run around one million tons with a cost estimated around $130-$150 millions.

The all-Canada, west-east gas pipeline would comprise the longest main line gas line in the world. It would take at least two years to build and the job would be big enough to employ most of the major pipeline construction firms in both Canada and U.S. Since the diameter of the pipe is to be 30- or 36-inch, the pipe will all have to be imported as there is no Canadian mill capable of rolling anything larger than 16-in. pipe. Actually there are only three mills anywhere capable of rolling the 36-in. size pipe and they are all in U.S.

The preliminary survey of the proposed trans-Canada gas line has already been made.

Moving out of the Princess field in Southeast Alberta, it would cross the southern section of Saskatchewan and Manitoba including Regina and Winnipeg on its route. It would then skirt the northern shore of Lake Superior taking in the two Lakehead cities. From there the line would travel through some of its most difficult terrain on its way to Sudbury in the heart of the rugged northern Ontario mining area.

The line would then swing almost due south to Toronto with an extension traveling eastward to Ottawa and Montreal. Another smaller diameter line would connect the main transmission line from a point near Toronto with Lambton county storage field controlled by Union Gas Co. of Canada. This branch line and the storage field would be integrated into the over-all pipeline system.

Need Market Buildup

The big economic hurdle in the trans-Canada gas pipeline is this: some 80% of the entire market would be located on the remote end of the line some 2,000 miles away. It is only through making maximum use of big inch pipeline economics — which means large diameter pipe operating at a high rate of capacity—that such an ambitious pipeline project can be brought into the range of economic feasibility.

In this case, this would not be possible without some extraordinary steps being taken to ensure a rapid market build-up in Eastern Canada.

These are the steps: Construction of a subsidiary line from the gasfields of southwestern Ontario as far east as Oakville; Construction of another line from a border crossing point on the Niagara River eastward to Toronto. Chief reason for both lines would be to supply natural gas at an early date—possibly by year end—to a large part of the potential eastern market.

The first line would draw on the gas reserves of Union Gas Co. in southwestern Ontario to feed an area as far east as Oakville.

The second line would supply imported U.S. gas to the greater Toronto area and possibly as far east as Montreal the second year.

Supplies from both these lines could be marketed by next fall if all goes well. In this way, the all-important eastern market could have two and maybe three years of build-up in readiness for the high volumes of western gas to be delivered from the completed line.

Once the big inch line reached Toronto the gas flow in the two subsidiary lines would be reversed—enough gas going back into the Dawn storage fields to compensate Union Gas for loss of reserves in the interval; a stated quantity of gas going back into the pipeline system of Tennessee Gas Transmission Co. in U.S. (This would be on an interruptable basis with some arrangement likely whereby the annual flow into U.S. could be reduced after a few years when the Canadian market expanded and was better able to handle the bulk of the pipeline throughput.)

The Plans in B.C.

On the west-coast, Westcoast Transmission Co., plans a 24-in. diameter line through B.C. from the Fort St. John area of the Peace River district in northern B.C. and Alberta to Portland, Oregon, a distance of some 932 miles. This firm would also connect with another subsidiary firm, Trans-Northwest Gas, at the mid-central Washington-B.C. border to supply the entire inland empire area of Washington and parts of Idaho. All lines, plus gathering lines in the fields and laterals from the main lines to all city gates, would total 1,940 miles.

Westcoast officials now estimate reserves available to their pipeline of close to four trillion cu. ft. The Federal Government has improved the supply position by changing its Electricity and Fluid Export Act to give Westcoast Transmission a firm amount of export gas for the entire export period of 22 years. This will amount to an annual volume of 83 billion cu. ft. for the states of Washington, Oregon and Idaho in the fifth year of operation with leave to apply for additional gas if required.

Westcoast is being opposed by a U.S. company—Pacific Northwest Pipeline Corp.—which proposes to supply the same market with gas from the San Juan Basin in New Mexico. The case has been before the Federal Power Commission in Washington for almost a year now. If a favorable decision is forthcoming by Spring—as expected—the Westcoast pipeline project will get under way with all speed.

But what are the various steps in planning for construction of a "big inch" pipeline? What are the problems and what means are taken to overcome them? There are few hard and fast rules in pipeline building, the job varying widely with the type of terrain to be traversed, the climatic conditions to be encountered, the pipeline load to be carried, etc.

In construction of the 718-mile, 24-in. Trans Mountain oil pipeline from Edmonton to Vancouver construction costs per mile varied from a minimum of $75,000 on the prairie to as high as $130,000 in the mountains.

The line had to cross some 60 rivers or streams — some 20 of which were considered major jobs. Pipe almost twice as thick as standard was used in the river crossings and the pipe had to be

(Continued on page 38)

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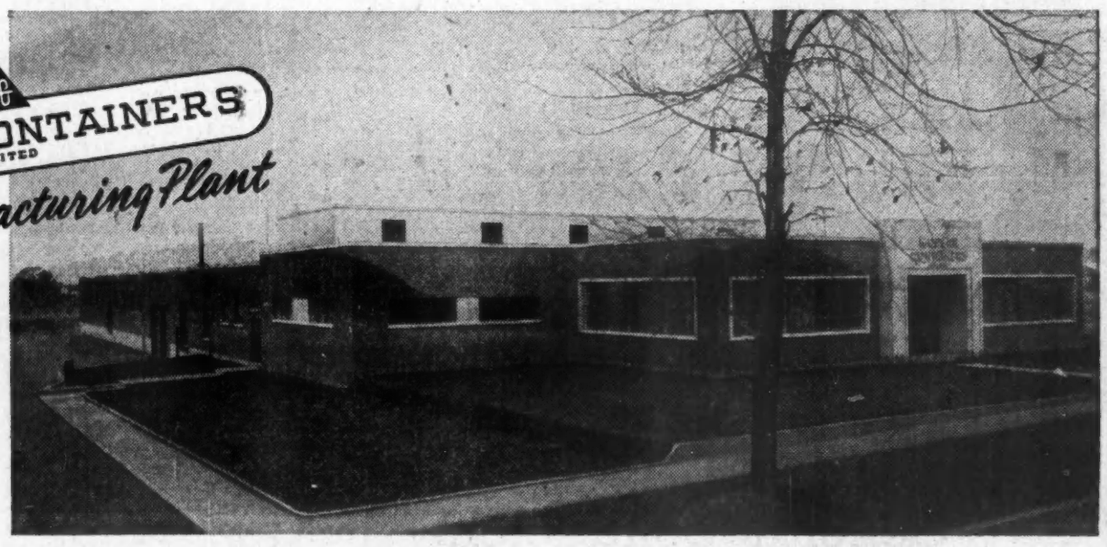

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Oil Gets Some 'Big Inch' Arteries

(Continued from page 37)

buried eight ft. or more below the stream bed. In rocky areas the top of the pipe was placed 24 in. below the surface; in agricultural areas some 30 in. so that farming can still be carried on over the pipe. Because of the wide range of temperatures in this country — and particularly the winter cold — all pipelines in Canada are buried. The lower the temperature drops, for instance, the more pressure is required to shove the oil or gas through the line.

In the Trans Mountain line, four pumping stations have been built along the line to give the oil sufficient "push" to get it to its destination in the required time. By adding another 10 pumping stations along the route, throughput could be tripled (to around 300,000 b/d).

So that the flow of oil can be shut off anywhere and at any time valves, which stand about nine ft. high and are welded into the pipeline, are installed at distances varying from 10 to 20 miles. The valves weigh about 9,000 lbs. apiece and cost around $15,000 a unit.

Since greater pressures are encountered in shoving natural gas through a line than oil, pipe thickness generally must be greater.

First Steps on a Pipeline

But here are some of the basic planning and construction steps in all pipelines:

In laying out the actual route to be followed, considerable use is made of aerial photographs. This basic information saves the land survey party many man-hours during location.

Before actual construction gets under way, it is necessary to obtain the necessary right-of-ways for the line. In the case of Trans Mountain where the right-of-way is 60 ft. wide some 3,000 separate property contracts had to be signed — private, municipal and governmental. Next the right-of-way is cleared and graded. Then the ditch for the pipe is dug by a special ditching machine or excavated with a backhoe.

The pipe is transported to the site from the nearest railway sidings — some 140 of them between Edmonton and Vancouver in the case of the Trans Mountain project. The pipe lengths are usually 40 ft. and weigh around 1 ton a length, depending on pipe thickness — or some 132 tons to the mile. From the sidings large, specially constructed trucks will string the pipe alongside the yard-wide ditch. Next, the pipe is welded by electric welding by expert welders. To ensure that each weld is as near perfect as possible X-rays are made of a representative number.

Pipelaying Machines

Following the welding, a self-propelled machine equipped with steel brushes cleans all the rust and scale from the pipe and applies a protective priming coat. This operation is followed by another self-propelled machine, known as the coat-and-wrap machine, which applies coal tar enamel at a temperature of 475 deg. F., then wraps the pipe with a glass fibre matting and on top of that asbestos felt. This wrapping prevents corrosion of the pipe.

The carefully wrapped pipe then is lifted by large side-boom tractors especially designed for pipelaying and gently lowered into the trench. Bulldozers and draglines replace the earth so efficiently that the right-of-way is restored to its original state and farming or other operations may be resumed at once on the surface.

The number of pumping stations varies with the load to be transported and the terrain. Up to a certain point throughput can be increased by the addition of extra pumping stations but there is an economic limit between size of pipe and number of stations. The capacity of pipelines varies as the diameter of the pipe squared — a 24-in. line for example has a capacity four times that of a 12-in. line.

The year just ended was one of the most important in Canadian pipeline history. The $90 million Trans Mountain oil line to the west coast was finished and operating by November. The 645-mile, 30-in. extension of the Interprovincial oil pipeline from Superior, Wis., to Sarnia was completed and operating in December.

A Difficult Crossing

Construction highlight of the year was the pipeline crossing of the Mackinac Straits by Lakehead Pipeline Co. (the U. S. subsidiary of Interprovincial).

The two 20-in. lines laid across the straits make up the world's deepest pipeline water crossing and are a vital link in the Superior to Sarnia extension. The two lines are merged again into the single 30-in. line once the crossing is made (the two lines under the straits is a safety measure).

The heavy lake traffic on Lake Michigan made it impossible to float the pipelines out on barges and then sink them. The lines had to be literally pulled across the bottom of the straits. The 13/16-in.-wall pipe, highly ductile so as to fit more readily into the uneven bottom of Lake Michigan, was pulled by cable and steam winch. Self-releasing pontoons reduced negative buoyancy. The filling method allowed deepest part of the line to settle into final position first while tension was slowly released on remainder.

The pipe was first welded into eight 2,500-ft. lengths on the starting bank and as each length was pulled out into the straits the next length was welded onto the last pipe and in turn pulled out full distance. Once the winch broke down, another time the cable broke and had to be located by divers working along the bottom of the straits.

Some of the best pipeline experts on the continent were called in to work on this job. Ray Hamilton of the Bechtel Corp. (managers of the project) who has laid pipe under water in the Persian Gulf was there. So were Joe Trixell and Sherman Serre of Merritt-Chapman & Scott (contractors) and Sammy Collins, head of Collins Construction Co. of Texas.

Other Pipeline Projects

The 200-mile, 8-in. petroleum products pipeline of Sun-Canadian Pipe Line Co. stretching between Sarnia and Toronto was completed in November. Initial maximum capacity of the line is 17,500 b/d with a single pumping station at Sarnia. Maximum ultimate capacity would be 35,000 b/d with installation of additional pumping stations. Estimated cost was around $6 millions.

The new line connects Sun Oil Co.'s new Sarnia refinery and Canadian Oil Co.'s Sarnia refinery with market depots on the way to Toronto. The line provides a year-around outlet at Hamilton, London and Toronto eliminating dependence on Great Lakes transportation which becomes icebound in winter.

Interprovincial and its U. S. subsidiary are planning further expansion of the system this year. The 645-mile extension from Superior is said just the first step in a program which will ultimately provide for greater movement of Canadian crude to Ontario refineries.

Work planned for this year will consist of some 600 miles of 24-in. and 26-in. pipe which will constitute loops of the system between Edmonton and Superior. About two thirds of the new line will be laid in Canada and approximately one third in U. S. In addition to the looping program five pumping stations will be constructed in Canada and four in U. S. Of the latter, one will be on the new 30-in. line between Superior and Sarnia. Plans are to complete the looping and station jobs by the end of the year.

Industry Seeks Skill for Future

Nearly 20,000 young men were in training in the construction trades during 1953, an increase of 10% over the previous year, J. M. Pigott, Hamilton, told the annual convention of the Canadian Construction Association at Vancouver.

Mr. Pigott, chairman of the CCA's apprenticeship committee, reported that 19,441 young men were in training during the year, against 15,216 during 1952.

He said that while the numbers trained still did not meet the needs of the construction industry, the Canadian Construction Association "has the satisfaction of realizing it has perfected a fine training system."

"The number of boys and employers who are enrolling themselves under these Government auspices is growing from year to year," he added.

Plans were under way whereby the National Employment Services would in future aid in securing apprentices for building trade training and the locating of employers to provide job training opportunities.

"The greatest difficulty," Mr. Pigott said, "has been the failure to grapple with the employers themselves. Many more boys could have been trained if employment opportunity had been available."

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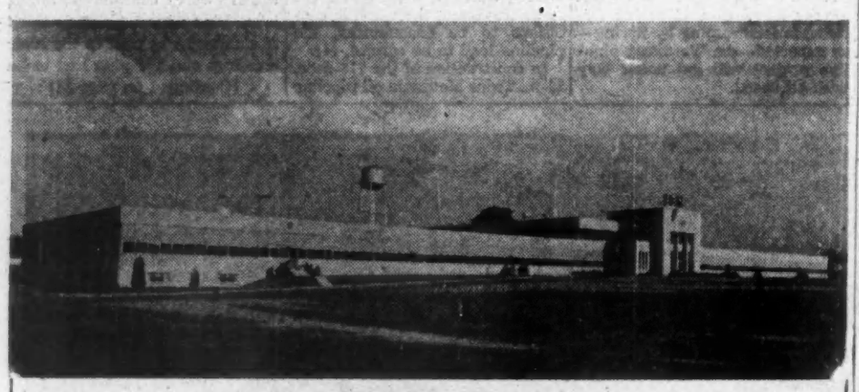

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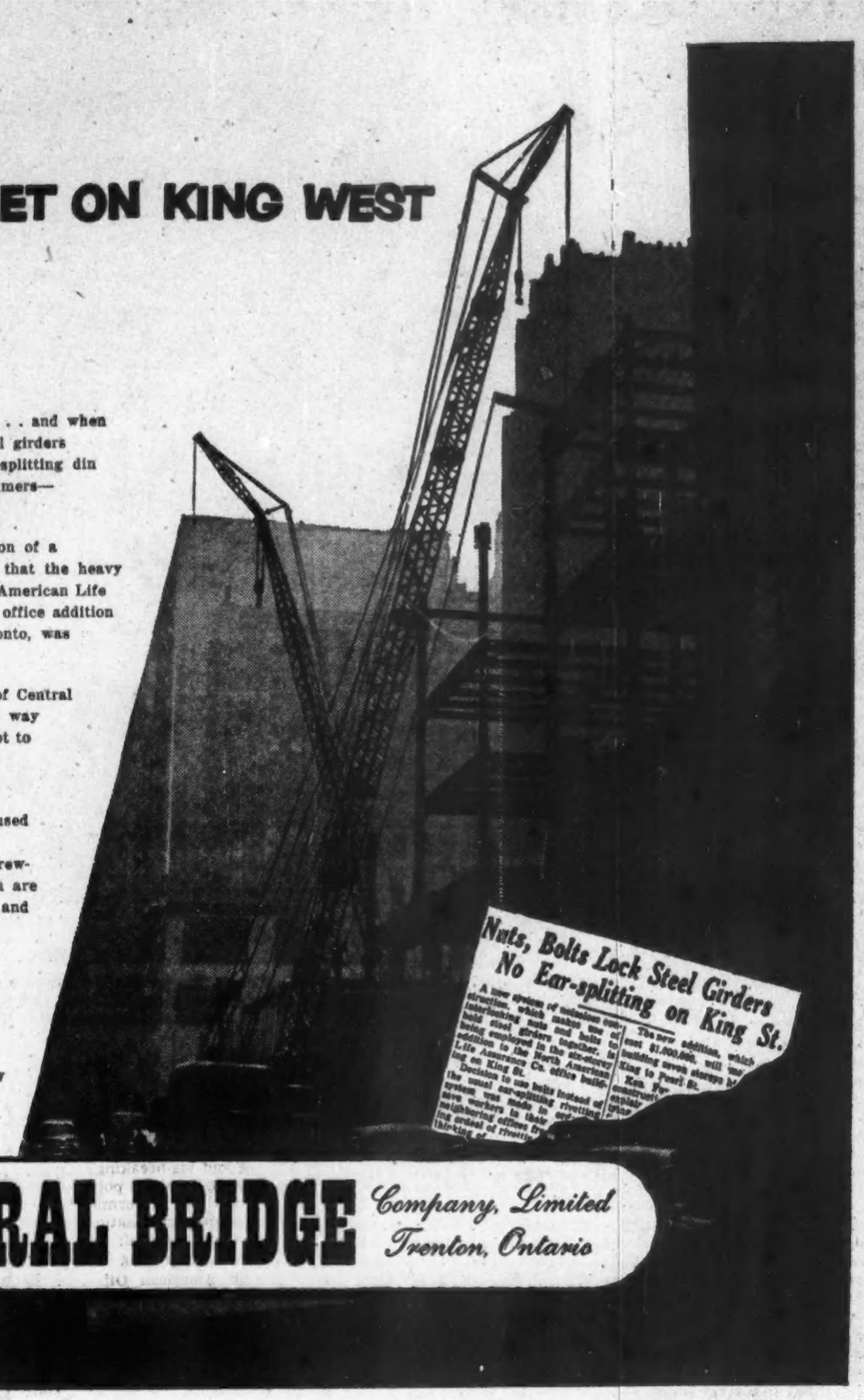

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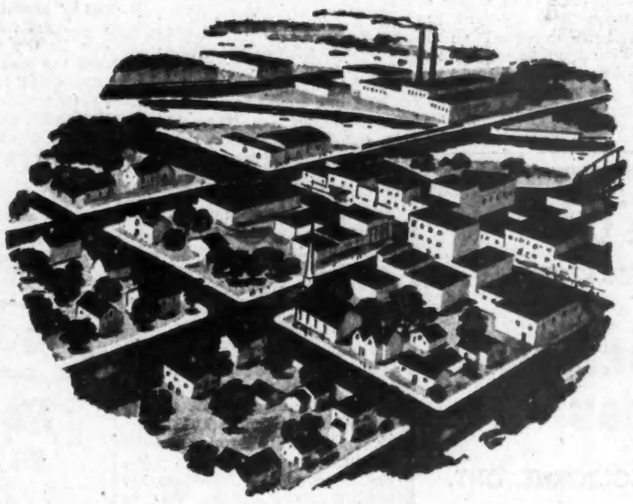

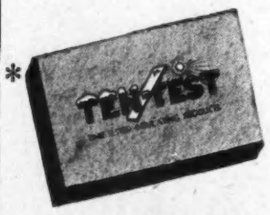

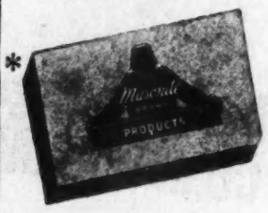

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Coast to Coast, the Nation Sprouts 'Cat Crackers'

Refinery, Petrochemical Boom Logs $600 Million Building

A revolution in processing methods has taken place in the petroleum industry since end of World War II. As a result both of skyrocketing demand for more and more gasoline, and gasoline of higher octane ratings, every major refiner has had to embark on modernization and expansion programs.

In Canada two developments were taking place in the same period which made the refinery building wave even greater than in other countries: discovery of substantial oil reserves in Western Canada and an expansion in general industry which outpaced that of other countries. Because of this, new refinery capacity built or now on the drawing boards, will about double total Canadian capacity which existed in 1946. In the building program, running well over $300 millions, every major and practically all the smaller refineries have been affected.

In about the same period a new offshoot industry — almost entirely dependent on this postwar refinery program, was being born in this country — the petrochemical industry. Operating on the stream of refinery gases made available from the new and expanded refineries some $300 millions in new petrochemical plants have been constructed in this country since end of World War II.

Both the oil refinery and petrochemical building programs are still under way. Together, they are helping change the face of industry and trade in this country.

All the refinery and petrochemical projects are highly complicated engineering and construction jobs. They have first been laid down in the form of process specifications painstakingly worked out by chemical engineers.

Practically all of these special jobs are being done by Canadian divisions of long-established U. S. firms which have been specializing in this type of work. The engineering experts work closely with the oil—or petrochemical—companies and usually remain on the job for many months after the construction phase is over helping iron out the "bugs" and get the plant into perfect running order.

Cat-Cracking Units

Highlight of the postwar wave of refinery building has been the widescale installation of catalytic cracking units. Every major oil firm has had to install these units to remain competitive. They have been the best answer to the postwar demand for higher and higher gasoline yields from the barrel of crude. The trend toward higher compression automobile engines in today's cars has meant that refiners must constantly upgrade the quality of their gasolines.

There are three basic units to the average cat-cracker: a furnace to heat the oil, a reactor chamber where the processing takes place and a regenerator structure where the catalyst — a product which speeds up the refining action but does not take part in the reaction itself — is purified and then rerouted back into the oil stream to work over again.

These postwar advances in refining techniques have given refiners a much greater degree of flexibility in their operations and the type of refinery units they decide to construct varies considerably depending on such factors as type of crude to be used, break-down of market to be supplied, transportation problems, etc.

Since practically all the processes are carried on in steel pipes and vessels and all storage and most transportation takes place in steel tanks and pipes respectively; steel is by far the major construction material in the modern refinery.

Taking the modern, 20,000 bbls.-a-day refinery built at Sarnia by Stone & Webster Canada Ltd. for Canadian Oil Cos. as a yardstick, today's up-to-date refinery requires the following materials:

— 21,600 tons of steel. This includes structural, reinforcing steel, fractionating towers, drums, tanks, piping and miscellaneous.

— some 150 miles of pipe, most of it above ground (only some 22 miles were underground in the Canadian Oil Cos. plant). This pipe includes transportation pipe from dock to storage, from storage through pumps to processing equipment — going through a nightmare of interconnecting piping on the way — then the refined products being carried back to storage and ultimately out of storage again to loading racks or into petroleum products pipelines.

— some 14,000 cu. yds. of cement was used, mainly for foundations for processing units and buildings.

— some 23,000 tons of crushed stone for roadbeds, etc.

Fuel consumption in a refinery of this size is about the same as the total fuel requirements of a city of 66,000 people — or 1½ times the size of Sarnia.

Electricity requirements equal that of a modern city of some 22,000 people — or about half the size of Sarnia.

Cooling water requirements used in processing, equal the needs of a city of some 288,000 people — about quarter the size of Toronto.

Corrosion Problem

By far the biggest maintenance problem in any refinery is overcoming corrosion in equipment. Since Redwater crude, for instance, has sulphur in it refinery builders and maintenance men have a constant battle on their hands. This calls for careful engineering, use of expensive alloys particularly in major processing units. For instance chrome steel is usually used in furnaces and stainless and other alloys in reacting towers.

Sarnia and Montreal have become Canada's major refining centres together accounting for some two thirds of total refining capacity in this country. The 645-mile, 30-inch extension of the Interprovincial pipeline from Superior, Wisc. to Sarnia, assuring year-around supplies of Western Canadian crude oil, is expected to make Sarnia one of the fastest-growing refining centres in Canada. Montreal, on the end of the Portland, Me.-Montreal oil pipeline is also expanding rapidly as a refining centre and is still the No. 1 refining centre in Canada.

Completion last fall of the 718-mile Trans Mountain oil pipeline to Vancouver has resulted in a large-scale refinery construction program at that city, with four companies so far participating in plant modernization and expansion programs.

Here is a run-down of chief refinery construction jobs in Canada:

Canadian Petrofina — a newly created company to carry on integrated oil operations in this country — will build a $20 million refinery in Montreal. It is expected that the 20,000 b/d refinery will go on stream by the fall of 1955. The new refinery will include a crude unit, vacuum distillating and vis-breaking, catalytic cracking, catalytic polymerization, catalytic reforming and catalytic desulphurization units. The last two unit will be new to Canadian oil refining.

British American Oil Co.'s $8 million expansion and modernization program at its Clarkson, Ont. refinery is expected to be completed about mid-year. A catalytic cracking unit, a catalytic polymerization unit, gas conconcentration and other facilities are being installed. Canadian Kellogg Co. is doing the processing units and M. W. Barnes Co. of Los Angeles did the "offsite" installations.

Imperial Oil Co.'s own engineering department is finalizing plan for the main processing units of the company's new $30 millions oil refinery to be built at the site of the present Halifax refinery. The old refinery will be largely replaced with the most modern in refining equipment. New units will include one of the largest fluid catalytic cracking units in Canada.

Once plans being drawn up by company's own engineers have been approved tenders will likely be called for the construction job. It is not expected that work will start until early next year with completion now scheduled for the summer of 1956. The new refinery, to have a capacity of some 41,625 b/d will just about double capacity of present refinery. Other refinery equipment to be installed beside the "cat" cracker will include an atmospheric and vacuum distillation unit, a catalytic polymerization unit, a gas recovery plant, a treating plant and a naphtha specialty plant.

A $7 million modernization program at Regina refinery should be completed by April. Fluor Corp. is doing the engineering job.

A new highly mechanized packaging plant and a mechanical shop, costing some $6 millions will be built at the Sarnia refinery. The job is being handled by Canadian Bechtel Ltd. The packaging plant is expected to be completed by mid-1955. The plant will cover 90,000 sq. ft. and be one of the most modern in Canada. It will handle Sarnia refinery's shipments of lubricants and other products in drums and smaller packages.

Tenders are in but not awarded yet on the $15 million construction program at the Edmonton plant. The new lubricating oils plant to be built will be the second largest in Canada and will be the first large-scale plant for manufacture of lubricating oils in Western Canada. Construction is planned to get under way this spring with a late 1955 completion date scheduled.

Early completion is expected in the expansion program at the Montreal refinery. About $10 millions is being spent on the program to boost capacity by 25%. Plans include enlarging the catalytic cracking unit and installation of new equipment, including an atmospheric and vacuum distillation unit and a vacuum pipe still. Canadian Bechtel has handled the engineering job.

Imperial's expansion and modernization program at the Vancouver Ioco refinery was completed in September. The construction job—handled by Canadian Bechtel—includes an atmospheric and vacuum distillation unit and a fluid catalytic cracking unit. Daily capacity of refinery has been about doubled at 22,500 b/d.

McColl-Frontenac Oil Co. is boosting capacity of its Edmonton refinery to 11,000 b/d. The project—to be completed by early next year—will cost around $4 millions. Plans call for construction of a new thermal cracking unit, a pressure flashing unit and additions to the existing catalytic polymerization and fluid catalytic cracking units.

North Star Oil Ltd. has finalized plans to replace its present 4,000 b/d refinery with a new 8,000-bbl. catalytic cracking plant at St. Boniface, Man. Company is also engaged on modernization and expansion program in service station outlets.

Royalite Oil Co.'s new 5,000 b/d refinery near Kamloops, B. C., is about half completed and expected to be in operation by late summer. The second stage of the building program will see construction of a catalytic cracking unit. The new refinery will be served by the recently completed Trans Mountain Oil pipeline.

Shell Oil Co. of Canada's expansion and modernization program at the Vancouver refinery will be completed this month. In the program which adds a polymerization unit and a "cat" cracker refinery capacity will be about doubled to 15,000 b/d. Fluor Corp. of Canada is the major contractor.

Sun Oil Co.'s first Canadian refinery came on stream at Sarnia in November. With a rated capacity of 15,000 b/d it is one of the most modern refineries in Canada. Now in operation is a new-type combination topping and Houdriflow catalytic cracking unit. With a rated capacity of some 11,000 b/d this is claimed to be the most modern "cat" cracker in North America. To come on stream soon is a Houdry catalytic reformer. The new refinery is being built by Catalytic Construction of Canada.

The Sun refinery equipment includes one of the most advanced types of system for the purification of waste water. This system includes a bacterial oxidation installation for the removal of phenol or other organic waste materials.

Inventors Busy On Construction

Numbers of foreign firms are currently seeking to introduce building products into Canada, usually by patent sale or license. Some recent examples, reported by the Department of Trade & Commerce, include:

An interlocking brick-faced building block. The block is of concrete, faced with genuine brick, it is stated. Blocks are alternately reversed, and mortar poured through holes on top from a hose fed by gravity or pressure, so the wall becomes interlocked and interwoven both horizontally and vertically.

An Italian engineer offers rights to sectional arches used for such projects as railway and road bridges, tunnels and cupolas.

A French manufacturer wants someone to make his chemical space heater. A chemical reaction brought on by addition of a catalyst produces heat; the catalyst does not wear out or become transformed, it is stated. There is no smoke, flame, gas or ashes.

An Italian manufacturer has a limestone brick which is said to have proven outstanding in tests by the National Research Council of Italy. It is made of limestone chippings, using a 1:14 cement mix by volume. It weighs about three fifths as much as an ordinary clay brick. It cuts labor costs and has other advantages.

An Austrian firm has a new kind of nail said to afford a much greater hold than several ordinary nails. Another Austrian company has developed a window-lock operated simply by pressure on the casement of the window; it is easily and cheaply manufactured of light metal, brass or plastic.

School Principal Writes

We constantly use The Financial Post in our school. I read it, then put it in the library. You would be surprised how many teachers and students read The Post in our school of 37 teachers and 946 students. It is the best publication we get.

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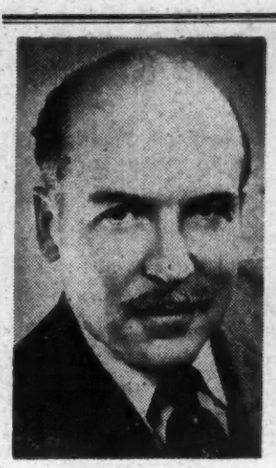

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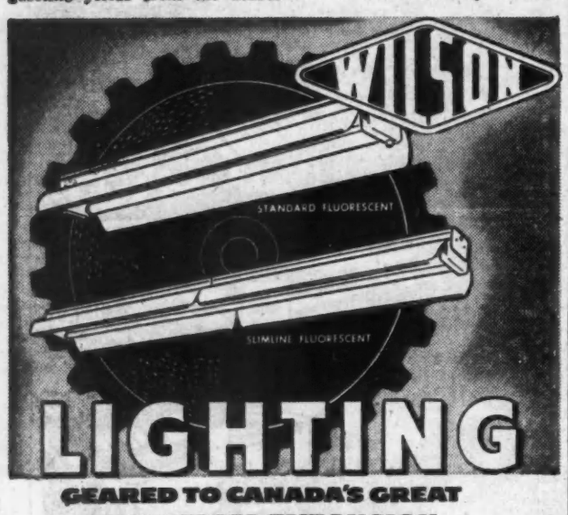
GEORGE PLAYFAIR-BROWN

In announcing change of name of the W. H. Yates Construction Company, to Robertson-Yates Corporation Limited, A. Blake Robertson, President, also announces the appointments of Gordon Kappler, as Vice-President and George Playfair-Brown, B.A., Sc., P. Eng., as General Manager.

Mr. Kappler has been associated with the Yates Construction Company for over 30 years in an Engineering and Managerial capacity. Mr. Playfair-Brown, a graduate of the University of Toronto, was formerly associated with the firm of Morrison, Hershfield, Millman & Huggins, and is widely known as a Consultant in the Materials Handling Field. Beginning January 2, 1954, Robertson-Yates Corporation Limited will carry out the commitments made under the name of the W. H. Yates Construction Company Limited, and assume the contractural obligations of Robertson Construction and Engineering Company Limited.

The construction facilities and personnel of the two companies will be brought under single administration with headquarters at 400 Wellington Street North, Hamilton, Ontario. A branch office will be maintained at Niagara Falls to serve that area.

The new name was selected in honour of Alonzo B. Robertson and the late William H. Yates, who have been well and favourably known to the construction industry in Canada for over 40 years.



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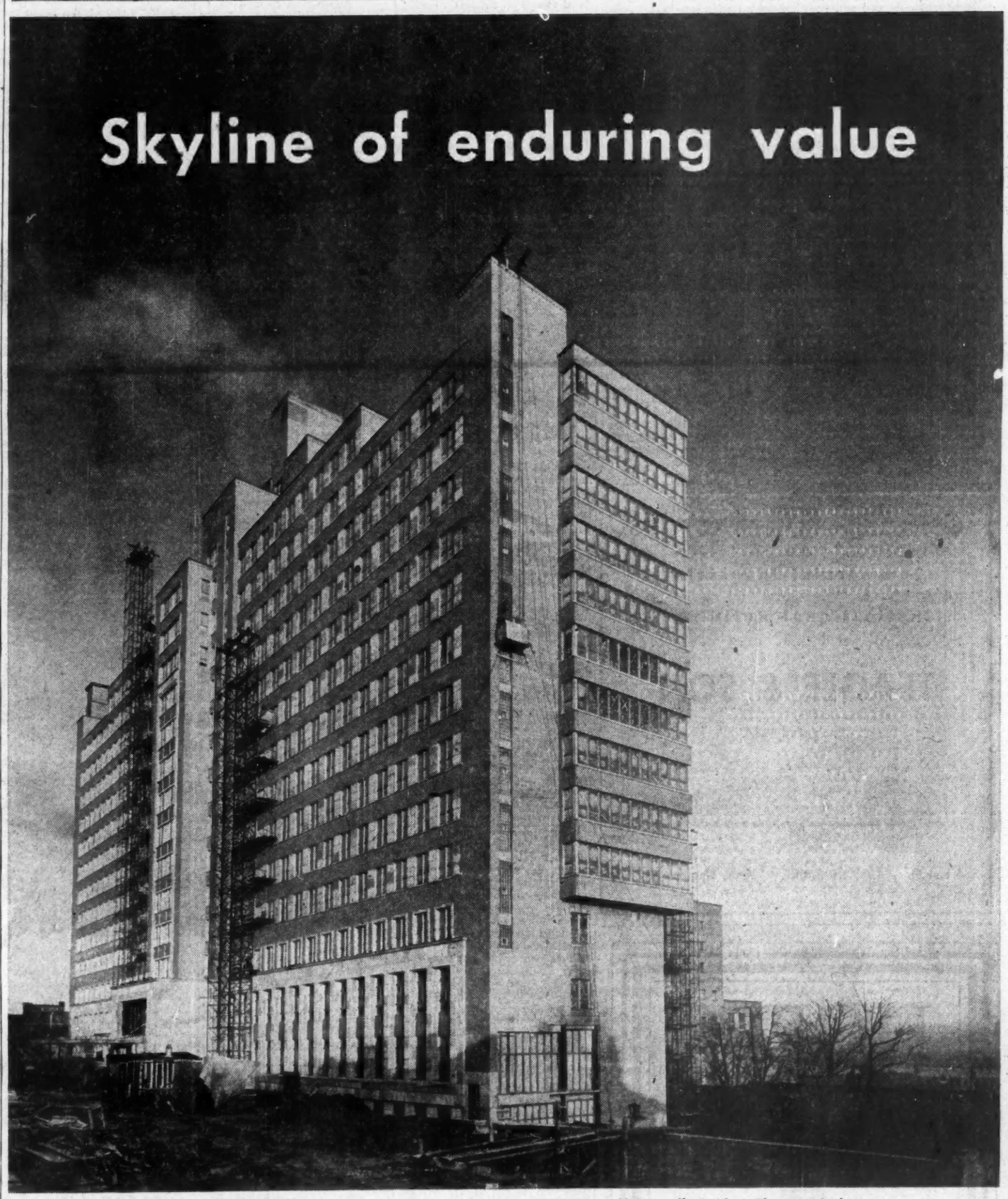

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Schools: the Building Industry's Big Challenge

(Continued from page 35)
the additional cost of staircases in 10 years. The decision, in the final analysis, must be based on how much the school board is prepared to pay for safety thereafter.

BROWN: A one-story elementary school is to be preferred, at least in suburban and rural areas where land is not too expensive, for the following reasons:

1. Operation, administration and supervision are simplified by their being on one floor.

2. Natural lighting is more efficient when bilateral lighting is used. (When classrooms have windows in both side walls.)

3. Direct access is provided out-of-doors from all classrooms, so that pupils may be taken outside for nature study, as well as having easy exit in case of fire.

4. Experience indicates that a one-story building is no more expensive than a two-story one, as the construction is lighter, and there are no heavy, fireproof floors to support above. In addition there is a saving in space as no stairs have to be provided.

COON: We are no longer satisfied with two- or three-story school buildings of non-fireproof construction, with insufficient stairways and exits, inadequate heating and ventilation, insufficient day lighting, improper electric lighting, and obsolete and dangerous sanitary arrangements.

Cost of the modern one-story basementless school is less than a two-story school of similar classroom accommodation with a large basement and the necessary fireproof construction which would now be required for safety.

Good-by, Basements

Mr. Coon, you stress that the one-story school should be basementless. Would you and your colleagues elaborate on this point?

COON: Certainly. A large basement is probably the most costly part of the building with respect to the structure. It is more economical to build above ground the space which was formerly relegated to the expensive and unsuitable basement.

BROWN: In addition, the supervision of basement rooms is rather unsatisfactory.

RUSSELL: Moisture always exists in any below-ground space. It is excessive during the summer and may cause damage to finish and equipment.

CRAIG: Basement playrooms are considered obsolete as, in emergencies, these tend to be used as temporary classrooms and such inefficient accommodation often becomes permanent.

SCHOALES: In London's new schools we provided large covered "porches" as part of the building, in lieu of dark, dingy basements where children formerly had to play on rainy days.

Need Larger Sites

Another feature of one-story schools is that they cover much more ground area, don't they?

McKEE: Yes, larger sites are required, but it should be remembered that these sites are more remote and should help direct school traffic in the opposite direction to business traffic. This is of greater value in new developments on fringe areas. The problems of privacy solve themselves in the newer, larger sites. In congested areas artificial methods must be used.

Since the value of land does not depreciate as do buildings and equipment, large sites are probably one of the best investments a community can make toward furthering its educational program.

VENCHIARUTTI: Privacy has been an important problem, particularly where contemporary additions have been made to existing schools. Traditionally, the latter have been placed close to the street leaving as much play area in the rear as possible. The new schools are low and have large glass areas, and when placed near the street, their interiors must be screened from view.

Windows, Lighting

Certain physical defects in adults have their origin, it is said, in improper classroom lighting. What is modern practice in this respect?

CRAIG: Need for abundant natural light in classrooms to reduce eyestrain has resulted in long banks of windows and uniform spacing of structural columns. The continuous banks of windows provide flexibility. Should changes be required to meet changing needs, partitions may be shifted with much less expense than in buildings of other days, and less initial expense is involved in the uniform spacing of structural columns.

BROWN: No difficulty is encountered with large glass areas, either from an insulation or maintenance point of view. As for lack of privacy, we have had only one request from a teacher for obscure glass in the lower panes of large windows. In fact, this is one of the nice things about the modern classroom, the unobstructed view.

High window sills in schools built in the past added considerably to the institutional character of the interior. Of course, it may be said that the teacher has difficulty in holding the attention of pupils when it's possible for them to gaze outside. This is a matter for the teacher to overcome. In any case, the school should not face busy streets where pupils are liable to be distracted.

RUSSELL: If large windows are considered desirable from the standpoint of lighting the classroom, use of prismatic glass blocks is suggested. They distribute light much more evenly than clear glass, do away with glare and the need for window blinds and storm sash. Practice is to install the block in panels over a continuous strip of windows running the length of the classroom.

VENCHIARUTTI: Development of prismatic glass blocks has helped alleviate the problem of providing uniform classroom lighting without glare. At the same time, there is as yet no one solution that combines economy and efficiency with complete success. Use of glass blocks in some measure does reduce glare, cut heat loss and distribute light toward the inside of the classroom.

PERRY: Large windows are less expensive than masonry walls and the solar heating effect probably offsets excessive heat loss at times when there is no sunlight.

COON: While big glass areas provide an atmosphere of cheerful openness which overcomes the shut-in feeling experienced in the old-fashioned classroom, it must be admitted that more evenly distributed and better illumination, with less glare than with daylight, can be obtained with properly designed electric lighting. This too is expensive to install and maintain and adds to the cost of the modern school, but no one would advocate a return to the badly lighted classroom of the past with its ill effects on children's health.

Problems Of Design

What are some of the general requirements which must be kept in mind in designing today's school?

McKEE: The only truly permanent school building today is an organically flexible school building. The educational process today, unlike that of even 10 years ago, is a dynamic one. This is so with respect to teaching methods, curricula, grade grouping and space accommodation for teaching as well as the economic, political and social aspects of a school district.

BERWICK: As one official of the B. C. Department of Education expressed it, "It would be well if every school could be torn down or eliminated every 25 years to make room for a new building. For if educational requirements change as much in the next quarter century as in the last, the schools at present under construction will be totally inadequate."

It's not enough merely to design structures with provision for expansion. It's equally important that the component parts of the building permit alterations as educational requirements change.

PERRY: Schools should be amortized over a 40-year period. Experience shows they are obsolete in that time due to changing methods of teaching or shifting of population.

RUSSELL: Economy in school design must be sought by careful planning to eliminate waste space, by achieving economical plumbing layouts and simple straightforward heating and ventilating systems, together with elimination of extraneous ornaments, towers, and other unnecessary features.

CRAIG: Expenditures of the taxpayers' money is not warranted unless it provides a building that is modern in the period in which it is built.

There are two factors that must be considered in the life of buildings—depreciation and obsolescence. Depreciation can, in a measure, be made good by repairs and continuous adequate upkeep, but obsolescence can be met only by a new structure.

No logical argument can be advanced for building a school or other building which does not adequately serve its functional need as envisaged at the time it was planned. Buildings erected 40 years ago were planned with this requirement in mind, and also with the object of presenting exterior and interior details which followed more or less slavishly some architectural style of the past and made a nostalgic appeal to the beholder. This frequently resulted in compressing the functional body into an ill-fitting garment which pinched the circulatory system and, like a tight corset, compressed the organism in places which impaired its health, efficiency and beauty.

In the modern school, all such practices are taboo. Corridors extend end to end of the structure, unblocked by stairways which would preclude expansion, and if a second story is required, stairways are located at right angles to the corridors to permit future extensions.

Is There A "Style"?

Modern schools have a utilitarian look, actually appear like "education-factories." Is this a new architectural style?

PERRY: If it is, the architect is not conciously trying to develop it as an end in itself. He is concerned with doing his best to design a building that suits the use to which it will be put. In doing so, he has eliminated expensive classic columns, pediments and stonework. The sculptured ornament which used to bedeck schools so lavishly is now a thing of the past.

COON: The architect's guiding principle is to design a place in which children and their teachers can spend, happily and with profit, a large proportion of their active hours. The school is no longer a monument with unnecessary and costly classical porticos and galvanized iron cornices, or with Tudor windows and Gothic entrances.

VENCHIARUTTI: The architectural solution to the school has not been the result of a new stylistic approach, but is an honest expression of technological and scientific advances made in the last few decades.

Regulations Govern

Are there certain official standards which must be adhered to in the design of schools?

CRAIG: Preliminary and final drawings for all elementary and secondary school buildings which are partially financed by provincial grants are subject to the inspection of competent Department of Education technicians. (Ed: In Ontario.) Standards of space for corridor and services in relation to classroom space have been established and are maintained.

VENCHIARUTTI: Many aspects of school design have been modified by recent educational reports. Municipal bylaws establish requirements which appreciably affect the characteristics of school planning, particularly with respect to fire regulations. In Ontario, wood frame structures and wood frame interior construction cannot be employed in any school over one story in height.

Children's Needs

So far, no mention has been made of the little people who occupy these fine new buildings. What role do the children play in formulating school design?

McKEE: In the experience of children in their first adventure away from the security of the home and familiar surroundings, present day design must aim at the feeling of intimacy, security and shelter and, therefore, a greater degree of impersonality in buildings.

A school must be an efficient utilitarian solution as well as a true expression of feeling related to the psychological requirements of pupils, teachers and the community. It is not only a question of dollar value.

VENCHIARUTTI: Elementary schools should be designed around the children and their needs. If we look back to our own elementary school days, we will undoubtedly notice that in too many cases the process was in reverse order.

We must consider the convenience and comfort of the children and also the environment that they grow in and in which we, the architects, help to modify or otherwise affect their outlook on life. We must realize that our designs have a definite physiological effect upon them. Physically and mentally, we control certain aspects of their adult future. The historic halls of Eton produce totally different people from those educated in production line schools with no traditional appeal of their own.

It is no exaggeration to say that a more appealing educational environment will lead to an overall rise in the standard of living. Generally speaking, when we consider the problem of school design, we cannot abstract any one of them without altering the whole aspect. It is safe to state that execution of today's school should not only be contemporary, but should point the way toward the kind of living children will desire upon maturity.

What Of Future?

That raises an interesting point. Will modern school buildings likely inspire a change in general architectural taste?

BERWICK: They most certainly will. To my way of thinking, today's pleasant, well-planned schools will so influence children that there will be no question as to what types of houses and other buildings they will insist upon when they are in a position to demand them.

Capital Investment In New Schools

(Construction Only)

	$ Millions
1953	118
1952	123
1951	101
1950	80
1949	71
1948	48
1947	28

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(—Rt. Hon. C. D. Howe at the opening of the new Building Research Centre, Ottawa).

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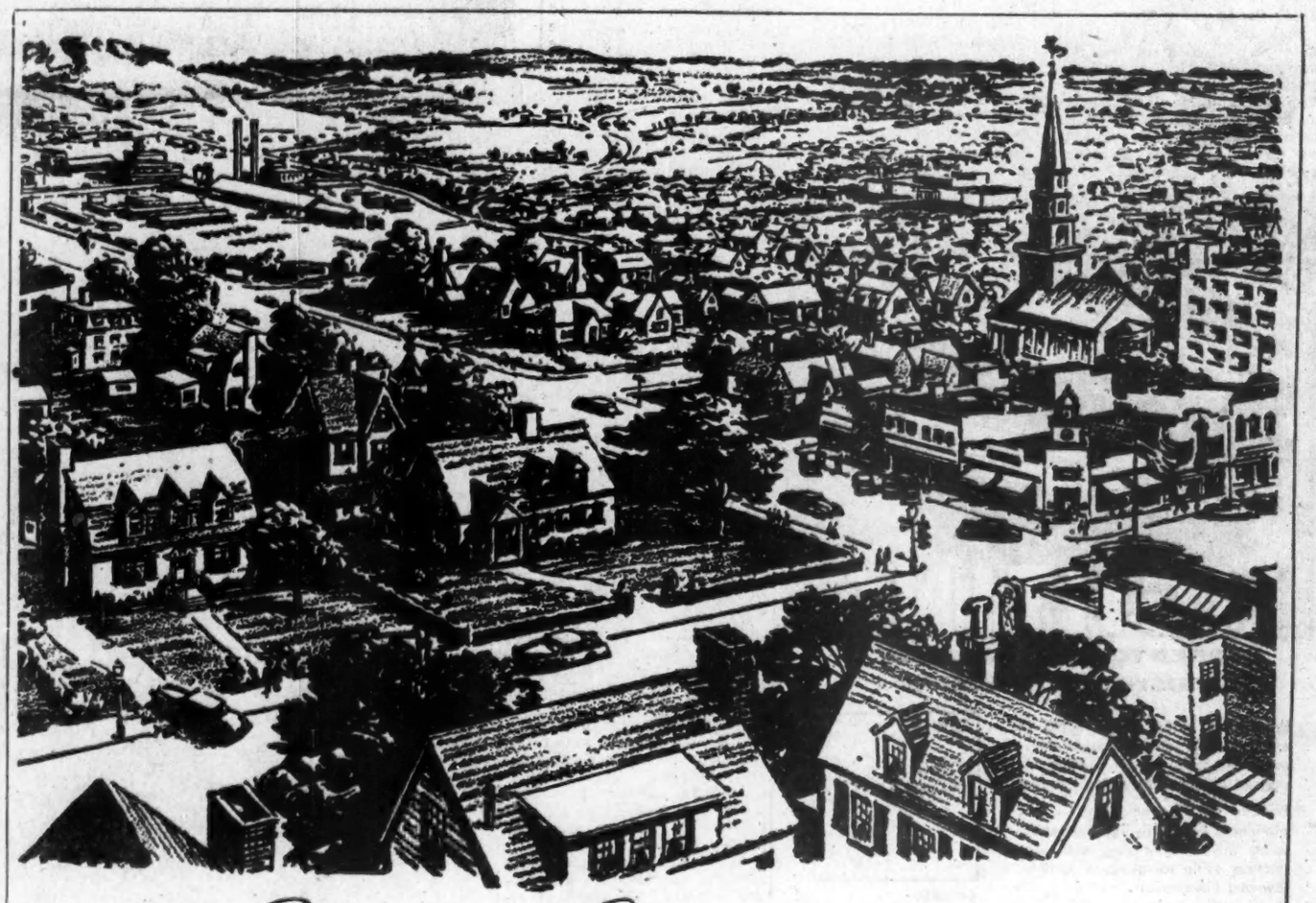
Purchase Offer For Mountroy

MONTREAL (Staff)—An offer has been made to purchase the outstanding common shares of Mountroy Metals Ltd. at a price in excess of $11 by the Canada Permanent Trust Co. for an unnamed party.

The offer, which expires March 1, must be accepted by shareholders representing at least 90% of the 150,000 outstanding NPV common shares. Latest report issued—for Sept. 30, 1953—shows a net profit of $60,304 ($0.40), as against $183,684 ($1.22) in the previous fiscal year.

The company, formerly known as Mount Royal Metal Co., ceased manufacturing operations on June 30, 1952, when it disposed of substantially all its equipment and facilities to Federated Metals Canada Ltd. Income since then has been chiefly from extensive investment holdings.



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The year ahead will make increasing demands on the lumber trade. More of our lumber will be going overseas. At home, builders will be demanding more lumber to erect at least 100,000 homes, the minimum envisaged under the new government housing law.

The better to fill these needs the lumbermen of Canada are meeting this week in Montreal. In business sessions and informal discussion groups, these men will be asking themselves how they can keep Canada's forests green and productive, how they can better their product while keeping production costs down, how best to preserve Canada's forest wealth for tomorrow's generations.

Forming the greatest free-will organization of its kind in the world, the Canadian Lumbermen's Association yearly sponsors this convention to which delegates from across the nation come to discuss their problems, all to permit your local lumberyard to serve the community better.

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A West Coast Mammoth Takes Shape

Kitimat Project Makes World Construction History

Never has a Canadian construction project collected as many "firsts" and "largest" classifications as the mammoth, $550 million Kitimat project of Aluminum Co. of Canada, now rapidly approaching the initial operating stage in Northern B. C.

The undertaking has made history in the annals of building in Canada.

It's the biggest single integrated industrial development in the world. In fact, its magnitude is something so new that the list of superlatives seems to lose meaning in its very length.

When completed, Kitimat will have the largest hydro power development ever built by private enterprise and the community eventually expected to go up there will be the world's largest aluminum production centre.

It has been estimated that the entire development will require 200,000 tons of steel, 24,000 tons of aluminum, and 4,000 tons of copper. In 1953 alone, over 270,000 barrels of cement were used —that's enough to pave a four-lane highway one foot thick for 20 miles.

The Kenney Dam, completed in October, 1952, is the third highest and largest rock-filled dam in the world. The steel and concrete reinforced penstocks within the Kemano Tunnel through DuBose Mountain—finished last December—is one of the largest pressure conduits ever built. One quarter mile inside the mountain will eventually be housed the world's largest underground powerhouse, with the greatest firm energy output and the highest capacity turbines.

And connecting this power source with the aluminum smelters at Kitimat is a 48-mile transmission line which will ultimately have the highest voltage power cables on the continent and the biggest conductors ever made.

That partial list of achievements reflects some of the magnitude and pioneering aspects of this great undertaking. Behind it has been a labor force with a peak of 7,000 men and the progressive Canadian management of Alcan.

To get a closer view of the separate yet integrated projects, here is a brief look at what has been involved in the construction of the Kenney Dam, the Kemano powerhouse and the Kildala transmission line, and a glance at what's in store for Kitimat.

The Kenney Dam is situated on the Nechako River, plugging the eastern outlets of a chain of 12 large lakes. The amount of water backed up forms the third largest power reservoir in the world.

In the construction of this giant, some four million cu. yds. of fill was required. Today, the structure towers 317-ft. from its base, with a crest line of 1,500 ft. at a width of 40 ft. For ultimate power capacity, about 845 billion cu. ft. of water are required to fill the reservoir thus created. The total reservoir and capacity stands at 358 sq. miles and 873 billion cu. ft.

The $20 million dam was started early in 1951, with rock excavation beginning on May 10, 1952. A four-lane highway was built to a nearby rock quarry along which 40 trucks dumped their loads at 45 second intervals. The initial blast to demolish the rock face was the biggest shot of dynamite ever used in Canada.

Initial capacity of the equipment now being installed at Kemano, 140 miles west of the dam site is about 420,000 hp., but damming the outlet of the Nanika-Kidprice Lakes and connecting this extra reservoir with Tahtsa Lake by tunnel it is estimated that 2,250,000 hp. of installed capacity with an eventual firm power at the generator of 1.6 million hp. for transmission to Kitimat would be provided. The dam was built by Mannix Ltd., which held the subcontract from Morrison-Knudson of Canada Ltd.

The Tunnel Job

Second major part of the project to be completed is the Kemano Tunnel—which was finished last December. Going through the Coast Range of mountains to create a head of 2,585 ft. for turbines in the powerhouse, carved out at the base of the mountain, work on the tunnel started in four places simultaneously (at each end and boring down on its centre).

Contractors for the tunnel and powerhouse complex and transmission line was Morrison-Knudson Co., Vancouver. British Columbia International Engineering directed design of the over-all hydro-electric phase of the project.

The main bore is about 25 ft. in diameter. Horseshoe shape, the floor has been surfaced with six inches of concrete. The main tunnel is 10 miles long, sloping gently westward at one quarter of 1% gradient. Average advance during construction was about 30 ft. a day. Crews broke world tunneling records three times in completing the job. (On one day 61 ft. of diorite granite was torn out.) Over 1½ million cu. yds. of rock were moved.

Actually, aside from the main cavern, many tunnels have been cut into the mountain to connect the penstocks with turbine units thus channeling the tail race waters to the surface. The course of the water from the end of the 10-mile tunnel into the turbines will divide into two penstocks about 11 ft. in diameter, tipped at a 48 degree angle. These will drop to the 1,600-ft. level and flatten out for another 1,100 ft. before the final drop to the turbine. The first to be installed by April of this year, will consist of three turbines, with each unit producing 140,000 hp. This initial phase will provide enough power to operate the Alcan smelter at a rate of 90,000 tons capacity of aluminum annually. The power generators incorporate the largest multinozzle impulse turbines in the world.

The powerhouse cavern has been designed large enough to accommodate five more units with a capacity of 700,000 hp. making an over-all capacity of 1,120,000 hp. Eventually, a third stage may be proceeded with, which involves the building of parallel 10-mile tunnel 300 ft. to the south and the enlargement of powerhouse cavern by some 400 ft. Ultimate power capacity has been set up to 2,240,000 hp.

This would make the installation the largest power generating unit in the world (Grand Coulee will eventually develop 2¼ million hp., but its annual firm energy generation will be smaller than that of the completed Kemano). Development to this eventual stage will, of course, depend on the world market situation for aluminum, as well as the demand for excess power by other industries located in the Kitimat area.

Another major part of the Kitimat development has been the installation of a 48-mile transmission line across the rugged terrain of Kildala Pass. In its construction the heaviest transmission cable ever designed in the world was used.

New Town In Bush

And as the huge Northern B. C. project is being completed, a model town is going up at Kitimat. Alcan estimates that the city will have a population of 7,000 on the strength of its own employment alone by 1955, with estimates for later years climbing as high as 50,000 inhabitants.

The townsite project is being carried out by eight major construction companies, which have united to form Kitimat Constructors. They are: Dawson Wade & Co.; Marwell Construction Co.; Campbell-Bennett Ltd.; Bennett & White Construction Co.; General Construction Co.; Emil Anderson Construction Co.; B. C. Bridge & Dredging Co.; and Dawson & Hall Ltd. These firms are building up the area where the town of Kitimat is now rapidly taking shape.

First plant to announce a location at the town is a $375,000 development of Canadian Liquid Air Co. Both Alcan and the British Columbia Government are promoting the industrial possibilities of the town, which are highlighted, of course, by readily available and economic hydro-electric power. The Bank of Montreal and Hudson's Bay Co. have already established facilities in the town.

It is planned that an ultra-modern shopping centre will be erected as well as a "service centre" which would provide space for sheet metal, woodworking, dairy, bakery, newspaper, and other light manufacturing type of business to be established near the Kitimat railroad station. (CNR is now completing a $10 million, 42-mile line to join Terrace, B.C., its main northern line, to Kitimat.)

Another major construction project at Kitimat is $7 million, 750-ft. wharf, which will eventually house a pneumatic unloading tower to suction (through electrically powered vacuum pumps) alumina from ships at the rate of 180 tons per hour. The tower, specially designed by Simon Handling Engineers Ltd., Cheshire, Eng., will discharge on to a 42-in. belt conveyor running the length of the wharf. Contract was awarded to Evans, Coleman & Evans Ltd. With a tidal range of over 20 ft., this was a very difficult operation.

Once Kitimat goes into operations—early this summer—initial capacity will be around 90,000 tons per annum. The ultimate potential of the new plant will be over 500,000 tons, which is about equal to the capacity of all the other Alcan plants now operated in Canada.

The aluminum processing facilities are located about five miles from the town. In the ultimate development, the smelter would be 2½ miles long—the biggest aluminum smelter in the world and a third again as large as the company's Arvida, Que. plant, which is now the world's largest aluminum smelter with a capacity of 360,000 tons a year.

Eventually, Kitimat it is thought might become British Columbia's fourth or fifth largest population concentration. Alcan definitely does not want a company town based on one industry alone.

UK Contractor Opens Branch At Edmonton

From Our Own Correspondent

EDMONTON—One of Britain's leading contracting firms, Rush & Tompkins Ltd. has just opened its only Canadian branch in this city where it has leased offices in the security building, with P. S. Everett, formerly of London, as branch manager.

The company has registered in Alberta and now is in process of obtaining a dominion charter as Rush & Tompkins (Canada) Ltd. Directors will be K. P. Rush and W. Tompkins, directors of the parent firm, and Mr. Everett. The Canadian company will have a capitalization of 100,000 npv shares.

Beside its activities in the British construction field, formed in 1930, the firm operates in South Africa and Ceylon. Its contract turnover is approximately $20 millions a year.

It is understood that at least $500,000 will be available at the start for operations in the Canadian field.

Some of the company's heavy equipment will be brought from the old country while the balance of it will be bought locally.

Interested in general contracting, the firm will tender for such work as bridge building, factories, apartments, schools, highways, and water sewage systems. It also hopes to do some work in the refinery field.

Opportunities in Canada field were surveyed by company directors on 1952 and 1953 visits. It was finally decided to locate in Edmonton because it was felt that this area offered the best prospect for the type of work in which the company proposes to engage.

In recent weeks, the branch at Edmonton has been familiarizing itself with the contracting field and the tendering system. It is expected that the firm will be in full readiness for opening of the general construction season shortly.

Ask Bids On New Refinery For North Star Oil

From Our Own Correspondent

WINNIPEG—Plans and specifications for the new oil refinery of North Star Oil Co. to be completed by July 1955 have been forwarded to contractors who expect to bid on its construction work. Its estimated cost is $6-8 millions.

The contract award will probably be made before the end of February and, in any case, in time to start construction early this spring. Some leveling work has already been done and tankage facilities erected on the 173-acre site purchased by the company in St. Boniface adjoining its present refinery.

Engineering work for the new plant which will have a capacity of 8,000 bbls. per day at first with allowance for increase to 10,000 bbls. a day, is being done by Universal Oil Products, Chicago.

North Star Oil Co. is the successor to Continental Oil Co. incorporated by a group of Manitoba interests in 1908. It has an operating refinery with capacity of about 4,500 bbls. daily which will be abandoned when the new and more modern plant is completed.

PARRY SOUND, Ont., has sold $125,000 5% debentures due March 1, 1955-64, to Mills, Spence & Co. on a cost basis to the town of 4.83%. Of the proceeds, $80,000 will be used for installation of artificial ice equipment and other improvements to the Memorial Arena, and $45,000 for waterworks extensions.

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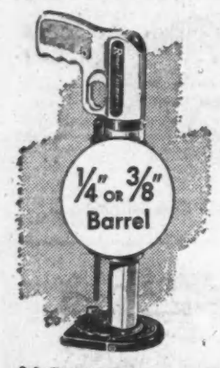

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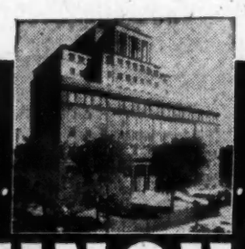

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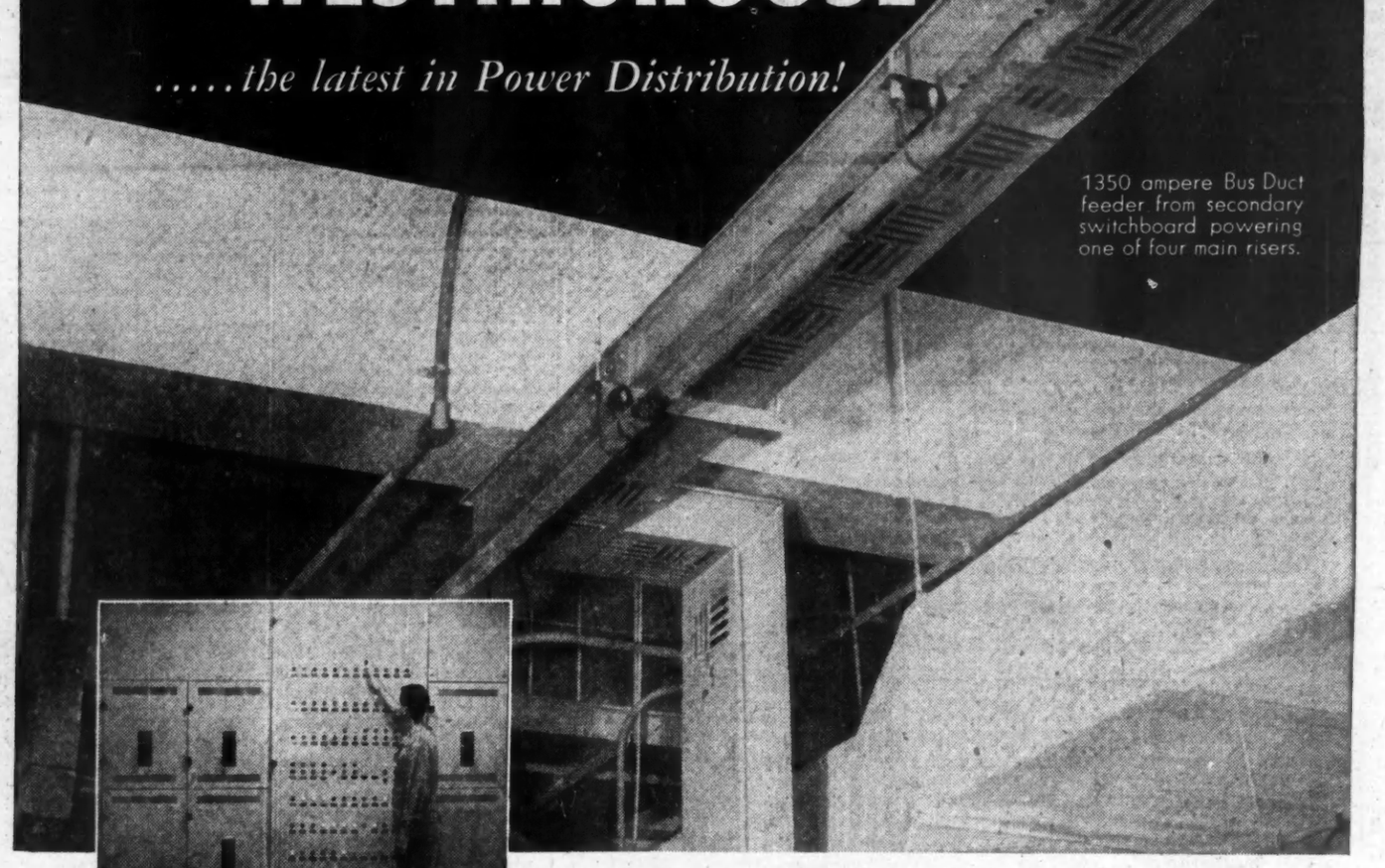
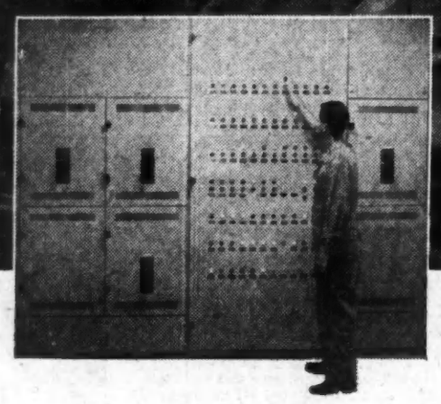


1350 ampere Bus Duct feeder from secondary switchboard powering one of four main risers.



View of motor control panelboard located in sub-basement. Motors on all floors can be controlled from this location.

Look for the latest in Power Distribution in a great modern building like the Manufacturers' Life! Westinghouse Bus Duct and Westinghouse Switchboards supply complete Power Distribution for this new eleven-storey addition. Westinghouse Bus Duct is the most efficient, most compact, most flexible method for carrying heavy current loads. Complete steel enclosure of the current-carrying copper bars assures absolute safety. Built-in transformers control flow of cooling water to the building's lighting fixtures. Westinghouse Switchboards control all lighting for the new addition — give push-button control of each of the many motors on all eleven floors. Built-in breakers automatically cut-in emergency diesel power supply. For the latest in Power Distribution specify Westinghouse Bus Duct and Westinghouse Switchboards.

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CONSTRUCTION INDUSTRIES DIVISION

CANADIAN WESTINGHOUSE COMPANY LIMITED, HAMILTON

Mine Building Backlog: $500 Millions

How Mining Contributes to Construction Industry's Health

Mining is one of the major contributors to the health and wealth of the Canadian construction industry.

It is estimated there is $500 millions of construction on mining projects either under way or starting across the country at this time.

And that does not include anything for some bigger longterm items the mining industry has in mind, such as a billion dollar project for a metallurgical-chemical "empire" based on Yukon and Northern B.C. power and mineral resources.

To this construction industry contribution must be added some of the very important indirect benefits provided by the mining industry.

Take the $30 million Waneta power project of Consolidated Mining & Smelting now completing in British Columbia. And the huge multi-million Bersimis River power project in Quebec which is expected to provide power for such far-flung projects as Noranda's Gaspé Copper Mines and the burgeoning Chibougamau area base metal and gold mining camp.

Uranium to Fore?

One of the big question marks on the level of mining industry construction over the next few years is what authorities decide to do about uranium. If a sufficiently attractive uranium price is assured, many projects will likely see expenditures which could aggregate a very substantial sum — perhaps $100 millions or better. Included in candidates for participating in such expenditures would be Algom Uranium, Pronto Uranium, Centre Lake Uranium, Rix Athabasca, and Beaucage Mines.

The level of base metal prices, of course, is another thing which will have a large bearing on new base metal projects. For instance, improved prices for lead and zinc might result in a large new mining project shaping up for Cominco at Pine Point on the south shore of Great Slave Lake.

And up in the Yukon, nickel discoveries of Hudson Bay Mining & Smelting, and nickel and other base metal discoveries of Prospectors Airways and associates, could easily result in other worthwhile developments.

The trend in mining is to adoption of new processing techniques which mean a more complete extraction of valuable minerals and in a more refined product. This trend means larger capital expenditures than generally prevailed previously. Such plants are good news for the mining industry because operating costs are generally lower. But they're good news for the construction industry too because there is more work in the offing.

Here is a Financial Post estimate of some of the major projects ahead:

Here Are Mining Projects In The Works

Mining Project	Area	Mill capacity tons daily	Est. Cost $	Stage
Brunswick Mining & Smelting	Bathurst	6,000	27,000,000	Planning
Caland Ore Co.	Steep Rock	(3,000,000)†	30,000,000	Starting
Campbell Chibougamau	Chibougamau	1,700	7,000,000	Under way
Eastern Metals	Montmagny	1,500	2,500,000	Projected
Falconbridge Nickel	Sudbury	.....	47,000,000	Under way
Gaspe Copper	Gaspe	6,500	25,000,000	Under way
Geco Mines	Manitouwadge	4,000-6,000	20,000,000	Possible
Gunnar Gold Mines	Beaverlodge	(1,000,000)*	10,000,000	Starting
International Nickel	Sudbury	1,000,000)*	10,000,000	Under way
Iron Ore Co. of Canada	Que-Labrador	(10,000,000)†	225,000,000	Under way
Sherritt Gordon Mines	Alberta	.....	16,800,000	Completing
Steep Rock Iron Mines	Steep Rock	(5,000,000)†	15,000,000	Under way
West Macdonald Mines	Rouyn	1,500	4,500,000	Under way

†Annual output planned. *Annual iron ore output.

How Construction Assn. Charts Future

(Continued from page 36)

able adjustment will be made with the contractor.

And further: That this Association will protest vigorously to the Department, owner, architect or engineer in cases brought to its attention where specifications do not conform to the conditions requested in this resolution.

Retention Of Holdbacks

Whereas: It is the practice of certain owners when calling for tenders to stipulate that a proportion of the holdback shall be retained for a year following the completion and acceptance of the project, and

Whereas: This requirement places an additional financial burden on the contractor and serves to increase the cost of new projects,

Therefore be it resolved: That this Association strongly urge owners and members of the engineering and architectural professions to refrain from the retention of holdbacks past the limits set by mechanics' lien requirements.

Whereas: The operation of a Builders' Exchange in a community is primarily to safeguard the interests of, and to stabilize the construction industry;

And whereas: All Builders' Exchanges are linked through their membership in the Canadian Construction Association,

Therefore be it resolved: That contractors, moving into a new area, be urged to recognize and respect the principles set down by the local Builders' Exchange.

Continued Federal Aid For The Building Of Highways

Whereas: The increase in the volume of road using traffic and the economic development of this country has far exceeded the rate of construction of road facilities and has resulted in a steadily increasing backlay of road requirements; and

Whereas: A properly integrated road system is necessary from the standpoint of improved lines of transportation for use in both peace and war; to provide access to undeveloped areas, to provide mobility of defense forces and materials, to provide access for construction of defense projects, to expand our tourist industry to provide dust-free roads and has become vital in the daily life of our country, and

Whereas: the construction of the Trans-Canada Highway demonstrates that the Federal and Provincial Government can work together in accord, and

Whereas: There is a continuing need for Federal aid for highway construction, and

Whereas: The Trans-Canada Highway Act will expire in 1956 and there are no commitments for continued participation in provincial highway programs after that date,

Therefore be it resolved that: The Canadian Construction Association reaffirms its request of last year (1953) and again urges that the Federal Government in Canada set up a National Highway Commission to co-ordinate the planning, financing and construction of main highways in Canada and to provide federal appropriations in keeping with the financial abilities of the Canadian people.

PFRA 53-54 Tally Is $12 Millions

Prairie Farm Rehabilitation is a considerable source of construction business in the Western Provinces, though many of the projects are small. In the year ending March 31, 1954, PFRA will have spent $12 millions. It is not yet possible to estimate the 1954-55 program, but it will no doubt be of good size.

Here is a summary of work in 1953-54:

1. Prairie Farm Rehabilitation Act and Water Storage: Over 1,800 dugouts and small individual water storage dams were constructed in Manitoba, Saskatchewan and Alberta. One new pasture was constructed in Saskatchewan and several more underwent extensive renovation. New spillways were built for a dam south of Regina and one near Maple Creek. The first stage of construction was completed for dams near Moosomin and Lemberg, and another dam south of Melville was completed. The Morden dam in Manitoba was completed. A weir across the La Salle River in Manitoba was completed and another one near Neepawa on the Whitemud River was started.

2. Major Irrigation and Reclamation Projects in the Prairie Provinces: Work continued on the St. Mary Project, including the construction of further reservoirs, canals and appurtenant works. On the Bow River Project, the largest single structure on this project, the Travers Dam, was nearly completed. Further canal enlargement, new canals, canal structures and inlet and outlet works to the reservoirs were constructed. Survey work continued on the South Saskatchewan River Project and numerous other projects in the three Prairie Provinces

3. Land Protection, Reclamation and Development in British Columbia: The Penticton West Bench Project was completed. Project improvement on the Lilloet Reclamation Project and Westbank Project were carried on and surveys for future projects were made.

4. Land Protection and Reclamation: In conjunction with the Province of Manitoba, further flood protective works were constructed in the Riding Mountain area and construction was started on dykes and other flood control works in the Pasquia section of the South Saskatchewan River Reclamation near The Pas.

5. Assiniboine River: New dykes were constructed along both sides of the Assiniboine River and old dykes repaired in the vicinity of Portage La Prairie. Two cut-offs were also constructed straightening out large bends in the river in this area.

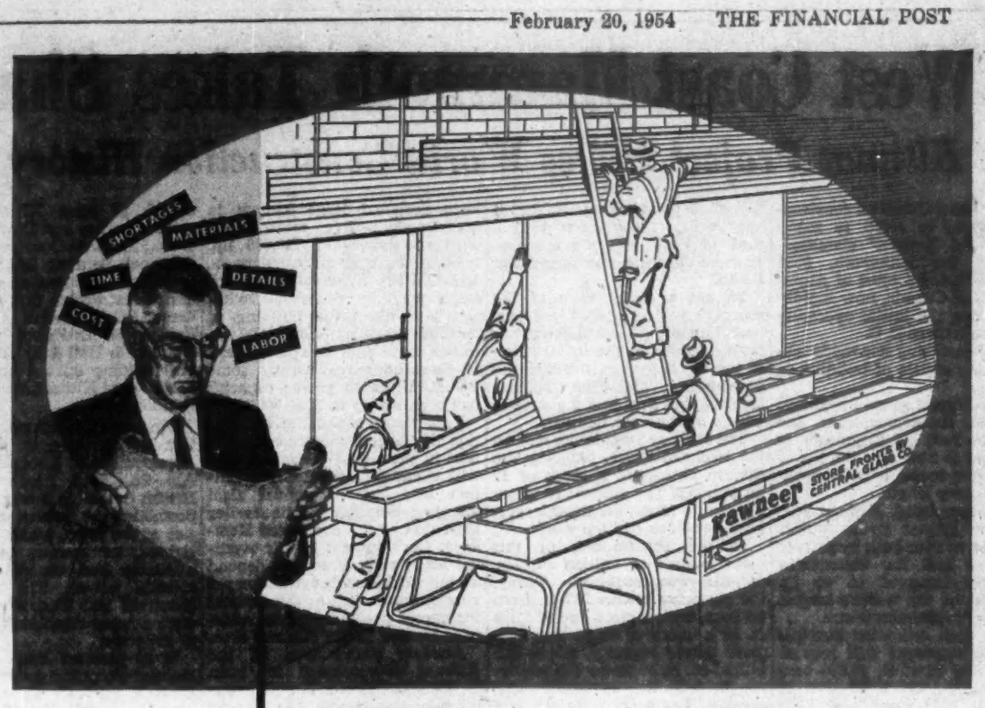
COMPANY REPORTS

NORTHERN LIFE ASSURANCE CO. OF CANADA shows new high records in all important items in 1953. New business exclusive of annuities, settled in 1953 was $23.5 millions, up about $1.2 millions, while business in force rose to $163 millions, up $15.2 millions. When to the total is added annual premium deferred annuity business representing $3,569,943 of life insurance, total business in force is $167.4 millions.

Both premiums and investment income increased approximately 10%. There was also a substantial increase in death claims and dividends paid to policyholders while endowments maturing and cash surrender values paid decreased. Mortality experienced was heavier than in 1952. The higher number of claims from accidental causes was again noticeable.

Total assets increased almost $2.2 millions. Bulk of the increase was in corporate bonds with a modest increase in the mortgage account. Policy reserves were increased by $1.8 million, after making provision for future liabilities on a substantially more conservative basis than required by government regulations. Shareholders surplus and free surplus for protection of policyholders increased.

	1953 $	1952 $
Insurance in force	163,817,682	148,636,829
Annuities in force	3,569,943	3,409,985
New business	23,543,711	22,342,714
Total income	5,181,126	5,021,315
Premiums	3,794,704	3,432,610
Int., divds., rents	1,346,945	1,315,768
Other income	39,479	272,937
Policy payments	1,664,233	1,706,974
Exps. & taxes	1,339,295	1,083,541
Other payments	109,413	243,784
Incr. in pol. res., etc.	1,808,101	1,896,236
Incr. in surplus	260,087	210,779
Incr. in ledger assets	1,997,435	1,910,836
Liabs. to p'holders incl. actuarial res.	27,027,178	25,351,143
Bank overdraft	.....	146,637
Other liabs.	571,391	818,052
Liabs. to sh'holders	366,810	344,878
Spec. res.	435,000	600,304
Total assets	30,171,820	28,070,902
Surplus	1,270,943	1,010,856
Gross int. earned	4.67%	4.75%



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Contractors engaged in erecting or remodeling buildings welcome the store front services offered by Kawneer Installing Dealers. Calling in factory-trained Kawneer store front application experts relieves you of all installation problems.

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You will benefit yourself and the owners when you sub-contract store front installations to Kawneer Installing Dealers. Call your Kawneer Dealer today. Or, contact the new Kawneer plant, warehouse and office, Kawneer Canada, Ltd., Don Mills Road, Toronto, 6, for full information.

A Kawneer bakery coffee-shop example.

Kawneer gave this market a new look.

Kawneer drive-in dairy application.

Before; left. After; above. Typical Kawneer grocery store modernization.

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From Loader to 'Dozer in 10 Minutes ...

You buy only one machine, a single investment — and yet with the Malo you're getting two machines in one!

Mr. Benedetti, owner of Benny Haulage, has this to say about his new International TD-9 with Malo one yard Loader 'Dozer: "It's a high-speed loader one minute, and yet ten minutes later it's a standard angledozer. We are certainly pleased with it!"

You too will be pleased with the International-Malo combination. Take this typical example of a Benny Haulage working day: one morning he had his TD-9 loading from a cliff face in west Hamilton . . . right after lunch his TD-9 was blading out a basement on the Hamilton Mountain. There is no other machine made which can match the Malo's versatility and successful record.

Malo loading is fast — in loading stone from a stockpile, a one yard Malo can outperform a ¾ yard shovel. Because it's an overhead loader, there's no swinging or pivoting, just scoop up, back up, dump. You'll find that one Malo and one man will be able to do the work of two ordinary machines and two men.

As an angledozer, the Malo blade has the highest reach of any on the market — it can complete the full overhead swing. The Malo blade digs to 18" below the level of the tracks and can be easily tilted in the conventional manner. This angleblade can again be replaced with a Malo Vee Snow Plow or Malo Rooter.

As a contractor, you will want all the facts on the Malo Loader 'Dozer specifically designed for the many sizes of International Crawlers. Contact your International Industrial Distributor!

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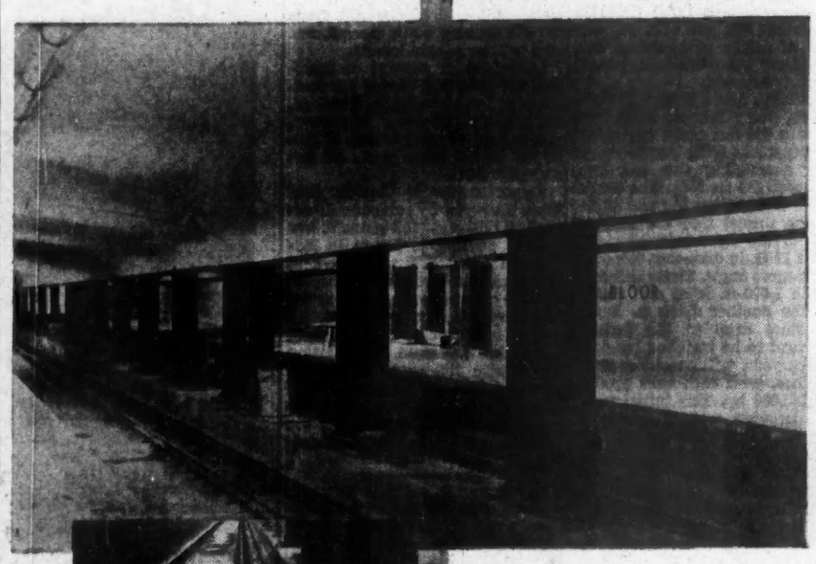
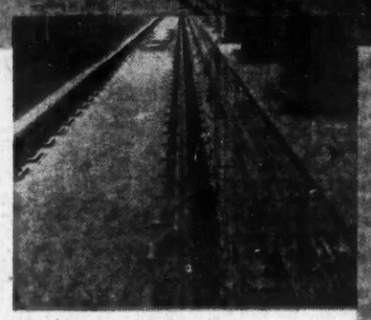
INTERNATIONAL POWER THAT PAYS

topic of CANADA WIRE *interest*



View of typical Toronto Subway Station, where Canada Wire "Flameseal" was used in wiring for interior lighting.



Section of track showing "third rail," for which Canada Wire engineered and manufactured the 1,500,000 circular mill Feeder Cable.

We are proud to have been associated with one of Canada's great engineering projects . . . the construction of Canada's first Subway by the Toronto Transportation Commission.

Both the 1,500,000 c.m. Feeder Cable for the "third rail" operation and Canada Wire "Flameseal" for station lighting are typical of the products supplied by Canada's largest exclusive manufacturers of electrical wires and cables.

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Construction: Key to New Frontiers

Ungava Rail Line Zooms Past Schedule

In the great drive on Canada's latent riches of the North, the achievements of Canadian construction are almost daily ringing up exciting chapters for the history books of future generations. One they'll be reading about: the $225 million Quebec-Labrador iron ore saga.

Construction men are just about at the "end of steel" of the already famed 360-mile railway into the iron country. That means the backbreaking end of things is over on this job for the four construction companies that built it: Cartier Construction Co., Montreal; Fred Mannix & Co., Calgary; McNamara Construction Co., Toronto; and Morrison-Knudsen Co., of Boise, Idaho.

Actually the rail line will not be completed until summer, since ballasting is yet to be done from mile 230 to the end of the line. But arrival of steel at Schefferville, the new town at Knob Lake, represents another construction achievement.

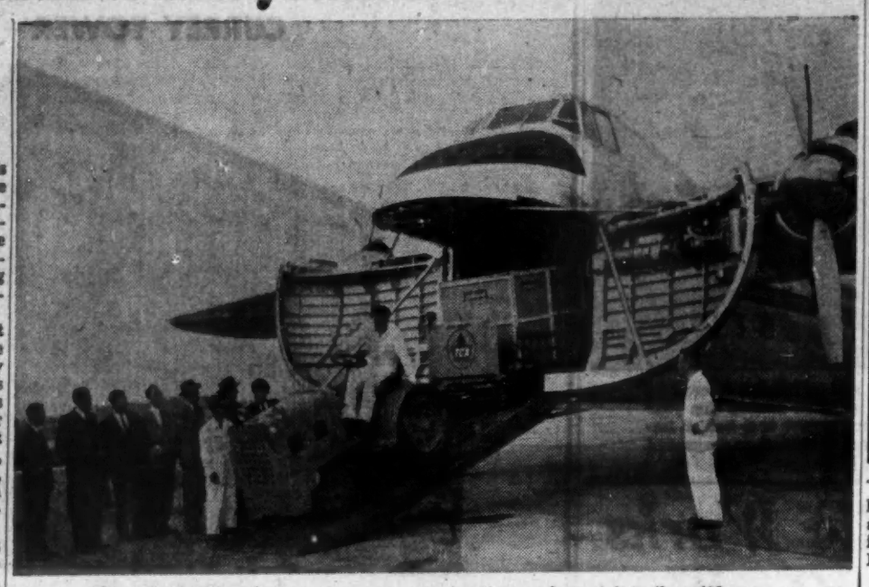
The over-all job represents one of the largest undertaken in Canada for some years and when first shipments of iron ore roll south to the St. Lawrence River port of Sept Isles, some $225 millions will have been spent by Iron Ore Co. of Canada, the biggest amount ever laid out by a mining company prior to actual production. Work is going ahead on schedule for the big prize: 10 million tons of iron ore a year initially; 20 million tons a year ultimately.

Building the railway — and finishing it one and a half years ahead of the original schedule — was a major achievement. The road had to be pushed through barren wilderness all the way, climbing steadily in extremely rugged country for the first 100 miles and then finally emerging onto flatter terrain for the balance of the route.

A 2,250-ft. tunnel had to be carved out 12 miles north of Seven Islands, followed by a 70-ft. bridge across the River Moisie. Thirty miles from the northern end of the line, a combination bridge and dam 1,100 ft. long was built.

The Big Lift

Virtually everything for the construction of the rail line had to be brought in, and most of it moved by air. A subsidiary flying company, Hollinger Ungava Transport, operated one of the largest civilian airlifts the world has ever seen.



Big freight cargo airplanes can carry construction equipment into the wilderness for development projects more cheaply than any other means of transportation in many cases, it is claimed. Airplanes were used in large measure to build the Labrador railroad. The plane in this picture is a Bristol Freighter, a type which has been used for moving heavy construction equipment and supplies to the Far North.

A string of landing strips cut at intervals for 320 miles north from the St. Lawrence converted a haphazard bush freighting operation into an airline-type night-and-day scheduled operation. The 20-aircraft firm made flying history by bringing in all timber — 25 ft. logs — for a 2,200-ft. bridge spanning a river. Dropping from the sky with eight-ton bulldozers and power shovels became routine.

The original railroad scheme involved cutting a road through to Knob Lake, then trucking in heavy equipment and supplies. That was a four-year plan. The decision to scrap the road plan and fly everything in was made because it was figured that aircraft could finish the job a year earlier and save at least $4 millions.

In the first nine months of 1953 alone, for instance, 45.7 million lb. of freight and 53,000 passengers were flown in.

Here's an idea of the huge amount of rolling stock needed to move the ore from Knob Lake to Sept Isles.

The operation requires 55 diesel units, 20 cabooses, 2,400 ore cars and, for construction and maintenance, 175 ballast cars, 50 boarding cars, 20 air dump cars, 100 flat cars, 15 tank cars and 20 box cars.

The ore cars will be of the solid box welded type, with a capacity of 95 tons, larger than any ore car now in use in Canada. The diesels will be 1,500 hp. road switchers, chosen because they're good in both road haul and yard switching.

Mechanized Trains

Train movements will be by signal indication, supplemented by end-to-end radio communications. Passing sidings will have power remote controlled switches at the south end and spring switches at the north end. Loaded trains will be kept on the main track at meeting points.

Making up a loaded train will be 115 cars hauled by locomotives of 6,000 hp. and, to handle the 10-million ton annual rate, it is expected that in the operating season seven trains a day will move in each direction.

At the southern terminal, Sept Isles, very extensive and costly (about $22 millions) installations are under way. Ore handling facilities have been engineered to load 30,000 tons of ore aboard ship in five hours. They include a 1,600-ft. dock, a railroad classification yard big enough to handle 800 cars, a car dumper to unload two cars at once, ore storage yards, a screening and ore-sizing plant, ore blending bins, vessel loading equipment and a complex network of conveyor lines.

The docks have now been completed at Sept Isles and installation of the ore-handling machinery is under way and scheduled for operation by July.

From the classification yard at Sept Isles, ore cars will move to the car dumper, where they'll be turned over. Then the ore will pass through a further crushing process to a conveyor belt which feeds either to the ship or the stockpile.

The whole railway setup, including terminal facilities, has been designed for expansion to the hoped-for 20-million ton rate. This would involve installation of a second car dumper and some yard additions, but practically no alternations to the main line.

Efficiency and a high degree of mechanization will be involved in the big project. With advance knowledge of requirements, the diesel-equipped railway will probably be the finest of its kind in the world. Ore will be carried for probably well under half the usual iron ore carrying rate of a cent a ton per mile.

Big six-yard electric shovels handling 2½ tons at a lift will deliver their ore to great 30-ton ore trucks which will dump their loads into a loading pocket. Conveyor belts will then take the ore to railway cars for the trip south to Seven Islands.

First mining will be done at the Ruth No. 3 deposit, which lies right next to the main railway line. It alone will permit production of 3.3 million tons of ore a year and will last for seven years. The Ferriman nos. 3 and 5 are also being readied for delivery of 3.5 million tons of ore each annually and work on other deposits will follow quite quickly.

Open pit mining in this country presents no great difficulties: at the Ruth No. 3 deposit, for example, the overburden is only about three feet.

Power Development

Power for the development will be provided from two sources.

At the south end, Ste. Marguerite Power Co. is proceeding on schedule with the construction of a hydro-electric power plant on the Ste. Marguerite River at "61 Falls," seven miles above the mouth of the river. The plant will have two units of 8,500 hp. each, operating under a head of 98 ft., and will probably be placed in service in May, 1954. Power will be delivered to Sept Isles and to Clarke City.

At the north end, in Labrador, Iron Ore Co. itself is nearing completion of a development at Menihek Rapids on the Ashuanipi River. The plant will have an initial installation of 12,000 hp. in two units, under a 34-ft. head, and an ultimate capacity of 24,000 hp. Power is expected to be available shortly for mining operations in the Burnt Creek and Knob Lake areas.

Participating in the great project, one of the world's largest new undertakings in the mining field in recent years, are Hollinger Consolidated Gold Mines, Hollinger North Shore Exploration Co., Labrador Mining & Exploration Co. and the M. A. Hanna Co., in association with six American steel companies. These firms formed Iron Ore Co. of Canada as the vehicle for developing, mining and marketing the Ungava iron ore reserves.

The steel companies include Armco Steel Corp., Hanna Coal & Ore Corp., National Steel Corp., Republic Steel Corp., Wheeling Steel Corp. and Youngstown Sheet & Tube Co.

Where will the ore go?

W. H. Durrell, general manager of Iron Ore Co., said recently, "We know we will be able to produce and ship 10 million tons a year even if the Seaway is never built. But if our production is to rise to 20 million tons a year — and a troubled world may demand that sooner than we dare believe —the Seaway will be necessary."

The main problem in marketing, he pointed out, will be one of transportation, and he stressed the Seaway's importance to the economical transportation of ore to inland steel mills. If the Seaway is not built, contracts will be let shortly for construction of docks and transfer facilities near Montreal. There, plans are to transfer ore from large ships coming from Seven Islands to canal boats capable of carrying about two million tons a year through the present canal system. Plans for the transfer dock have been finished and the facilities are expected to be ready for the opening of navigation in the spring of 1955.

"To ensure a fair return on our investment," Durrell reported, "we require to mine and ship a minimum of 10-12 million tons of iron ore a year. The steel companies participating in the venture have agreed to take the first 10 million tons of annual production at current prices, but sales beyond that will, of course, be competitive with world producers.

"Once the power phase of the (Seaway) project has been settled between Ontario and New York State, Canada intends to go ahead with the job. If the United States participates, so much the better, but the fast-expanding economy of Canada, and the development of rich natural resources in the extreme east and the extreme west of Canada, demands that the Seaway should become available at the earliest possible moment."

New Firm Sells UK Bldg. Equipment

A new British company, Drayton Construction Equipment Ltd., has been set up to handle construction equipment and other items.

Company is jointly owned by Road Machines (Drayton) Ltd. and United Steel Corp. Scope of operation will be sales, rental and service in Ontario for products of Road Machines (Drayton) Ltd., United Steel of Welland, Ont., remaining the distributors for the rest of Canada. The new company will handle British equipment consisting of: Mono-rail transporters; weigh batching equipment; a range of dumpers; bulk cement plant; hydraulic front end loader; hoists; Humdinger concrete vibrators; block making machines; telescopic beams; vibrating tables; industrial trucks.

F. E. Forsdike has been named general manager. Head office is at Toronto.

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Engineers and Contractors

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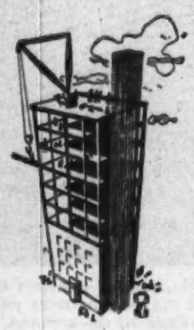

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Planning Biggest Postwar Hotel Construction Job

New postwar hotel construction in Canada has lagged behind the expansion of the economy as a whole, for a number of reasons.

For one thing, during the hungry 1930's there were far too many rooms for the number of guests. The result was that most hotels had a very lean time of it, and some even went bankrupt. While this slack has since been taken up and many cities are now pinched for rooms, particularly early in the week, costs have meantime risen to levels at which construction is often considered too risky.

A good many smaller hotels and one big one have been built, but generally speaking, the hotel industry has laid most of the emphasis in recent years on renovation and modernization.

This year, however, a start may be made on the biggest construction job in the industry's postwar history, the $20 million unit to be built in downtown Montreal by Canadian National Railways.

Containing upwards of 1,000 rooms, the project is being included in CN's budget to be laid before the House of Commons. Assuming it receives the government green light, the railway hopes to get under way on the job later this year.

Location will be the southeast corner of Dorchester and Mansfield Streets, over what is now the north plaza at central station. Architects' plans have been in the making for several years and they call for public rooms capable of accommodating 2,500 people at banquets and 4,000 at meetings.

The building, extending for 350 ft. from Mansfield east along Dorchester and 300 ft. south on Dorchester, will make Montreal one of North America's best convention cities. There will be 20 stories of guest rooms on Dorchester and 19 on a setback from Mansfield. A large portion of the rooms will be furnished as "studio" type bed-sitting rooms, the balance as standard bedrooms and hotel suites.

Escalators

Several features of the hotel, with its clean, modern lines, are interesting from a construction angle.

Guests, for instance, will be able to enter by elevators and escalators from the station concourse level, by two entrances on Dorchester and from the north by Cathcart St. Car arrivals will be able to alight within a few feet of an escalator to the main lobby and have their cars taken to the adjacent hotel garage.

CN's new hotel, incidentally, is part of a long-term program for development of the railway's Montreal terminal. Plans for the future include a 28-story railway office building slightly east between the hotel and the International Aviation Building; a wide plaza on the north side of Dorchester facing the hotel; office buildings and shops flanking the plaza and two floors of garage accommodation beneath it.

A fair number of smaller hotel building jobs are on the books in Canada and negotiations for others are under way.

In Toronto, a $5.5 million 300-room hotel is to be built on the site of the Yonge St. Arcade. This is an old building with an arcade of stores connecting Yonge and Victoria Streets above Adelaide St. The new seven-story structure is scheduled for completion by February, 1955.

Part-owners and builders of the project are Principal Investments Ltd., of Toronto. A new arcade, with two levels, is planned. Twenty quality shops will be included on the ground and basement level with four fronting on Yonge St. Parking for 100 cars is planned on a separate lot.

On Toronto's Lakeshore, a new $1 million apartment hotel is scheduled for completion this year. Being built by Seaways Apartment Hotel Co., it will rest on a monolithic concrete slab extended under its 391-ft. length and dipping gradually to the middle to go under a basement for heating purposes.

Four stories high, the building will be located on hydraulic fill. The 12-in. thick slab will contain 63 tons of steel reinforcing. Weight of the building will be so distributed by the slab that loading on the fill underneath will not exceed 1,000 lb. per sq. ft. The building, but not the slab, will be in three sections with two expansion joints.

The structure itself will be of reinforced concrete, with brick facing. Large glass windows will be featured and 50% of the 120 apartments or rooms will have balconies. The projecting balconies will shield the windows from the sun.

In booming Edmonton, Canadian National last year finished a 16-story addition to its Macdonald Hotel. Adding 300 rooms to the hotel's capacity, the job cost $4.5 millions and was designed with special attention to the city's growing popularity as a convention centre.

The extension is a long, narrow building, in sharp contrast to the Chateau-style of the old hotel. One hundred of its rooms are of the studio type, with one single bed and a living room sofa doubling as another. The other 200 are of a more orthodox design, furnished with twin or double beds.

Moving farther west, the 560-room Hotel Vancouver last year purchased land behind its existing building but has so far given no indication that it plans to start construction of an addition.

This hotel is owned jointly by Canadian National and Canadian Pacific. The only work it has under way at present is some interior renovation designed to give the bank more space.

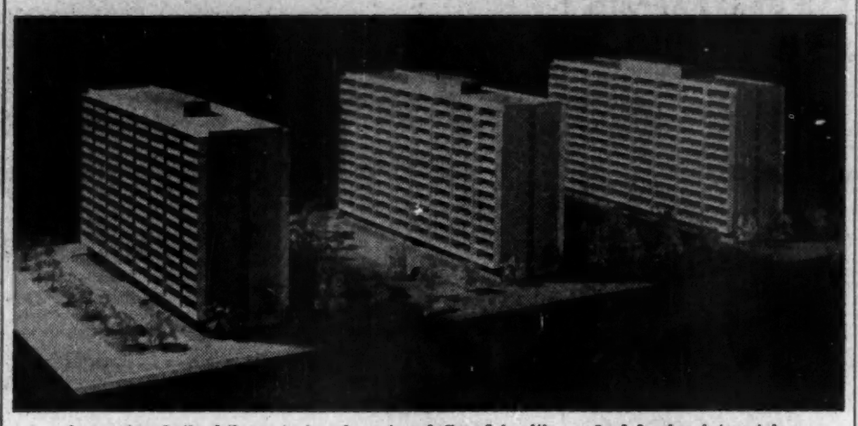
A good deal of today's expansion in the business of selling accommodation is in the motel field. With more cars on the roads, highways getting better all the time and downtown traffic congestion becoming worse in many centres, motels are getting a large share of the traveler's dollar.

Swank roadside developments featuring rooms as good as those in top-grade city hotels are growing up on the borders of many Canadian cities and the bare cabin with its complete lack of comforts is fast being replaced.

Take a new luxury motel going up near Ottawa, for instance. Being built by Randolph Hotel Co., of Toronto, it will cost $300,000, is designed as "a desirable lodging for members of Parliament and Senators during sessions." Some $40,000 will be spent on landscaping alone.

Ontario has been leading the parade in new motel construction. In 1952 alone, 100 new ones opened in the province, while some 25 others enlarged their facilities, for a total of 1,500 new rental units. And the rate last year showed few signs of slackening.

Modern Living for Canadian City Dwellers



A symptom both of the maturing character of Canada's cities and of foreign interest in real estate investment here, an $8 million apartment project is to be started this year at Toronto. Swiss interests are behind it; the architect, Peter Caspari, is a British immigrant. There will be 800 suites in three buildings of 14 stories each, with underground parking for about 500 cars. It will replace slum buildings.

Big Public Works Demands On Way

OTTAWA (Staff) — The construction industry will face heavy demands from the Federal Government's public works program in the coming year.

Although the Department of Public Works' total vote is only $7 millions higher than last year, a change of emphasis in the program swings it more heavily toward new building, while less will be spent on harbor and river works.

It is, moreover, in the sphere of new construction that spending in the current fiscal year is falling farthest short of estimates. In the coming year, the intention has been only to list in the Government's estimates projects which can be carried out during the year. While it is expected that there will still be some shortfall, it may not be nearly as large as it was in many past years.

The general nature of the program shows little change from earlier years. It still concentrates on "public buildings" and some postal accommodation. In Ottawa itself $2,350,000 is provided to complete the eastern section of the Veterans' Building on Wellington Street, and $1.8 millions to start the western section. The Food and Drug Laboratory of the Department of Health and Welfare has an allotment of $2.4 millions. $150,000 is provided for the projected National Library, which indicates that not very much can be done on construction in the coming year.

In Montreal, $1.5 millions is provided for the coming year's work on the new building for the National Film Board. The provision for the National Printing Bureau in Hull is $3.5 millions, which is noted as the sum necessary "to complete."

Other items running over $1 million are:

An office building in Hamilton —$1 million.

Public building in Winnipeg—$2 millions.

Public building in Edmonton—$2 millions.

Customs building for Vancouver—$1.2 millions.

Post office for Vancouver—$2 millions.

The following table shows the amounts proposed to be spent in each province, and in Ottawa, in the fiscal year 1954-55. The new votes are compared here, not with last year's vote, but with the amounts now expected to be spent before March 31 this year.

Estimates for Construction, Acquisition and Improvement of Public Buildings by The Architectural Branch of Department of Public Works.

	To be Voted for 1954-55	Forecast Expenditure 1953-54
Newfoundland	550,000	61,000
Nova Scotia	1,330,000	652,000
Prince Edw. Island	550,000	231,000
New Brunswick	1,250,000	700,000
Quebec	10,580,000	9,201,000
Ottawa	10,640,000	2,055,000
Ontario (ex. Ottawa)	9,415,000	5,713,000
Manitoba	2,665,000	865,000
Saskatchewan	2,720,000	2,155,000
Alberta	3,600,000	460,000
British Columbia	4,450,000	2,056,000
Yukon & N.W.T.	670,000	990,000
Unforeseen	1,300,000	900,000
TOTALS	48,930,000	26,039,000

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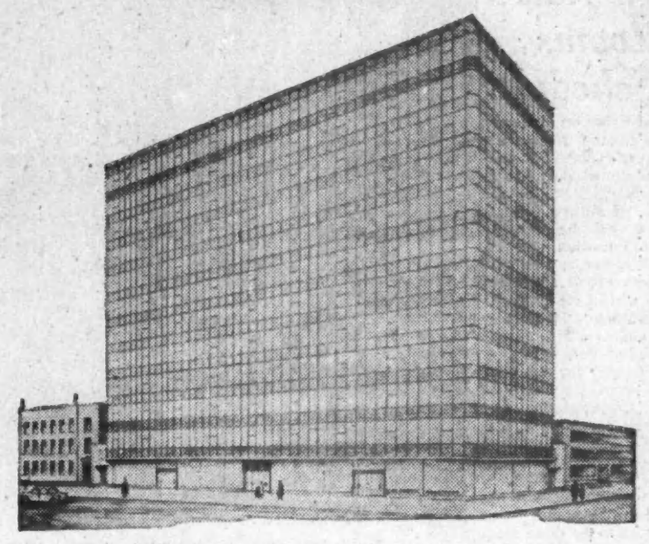

This magnificent building now in course of construction is an example of modern grace and beauty. The frame of this twelve story building is an expertly engineered reinforced concrete structure — by —

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Basic Construction Soon On Army's Camp Gagetown

OTTAWA (Staff) — The Army will take possession this summer of its huge new training area near Fredericton, to be known as Camp Gagetown. Basic construction work at the campsite will start this summer.

At the present time expropriation is not yet complete. It looks as though it will cost the Army something over $10 millions to acquire the site. The last valuations to be settled will probably be the proper compensation to be paid the operators of timber limits in the area. The limits are being cruised this winter by Government parties and parties from the owners or lessees; but the final determination of compensation will have to be reached by negotiation. In the last resort appeal can be made to the Exchequer Court of Canada.

Private owners of land within the training area have, in some cases, not yet moved out. Since the acquisition of their properties by the Government some have found it convenient to stay on and pay rent to the Department of National Defense. It is estimated that some 970 families are affected, and will have to move out of the area this spring.

The first work to be done will consist of clearing and reforming the land for the campsite. And this will be followed by the installation of sewage and water mains and other utilities.

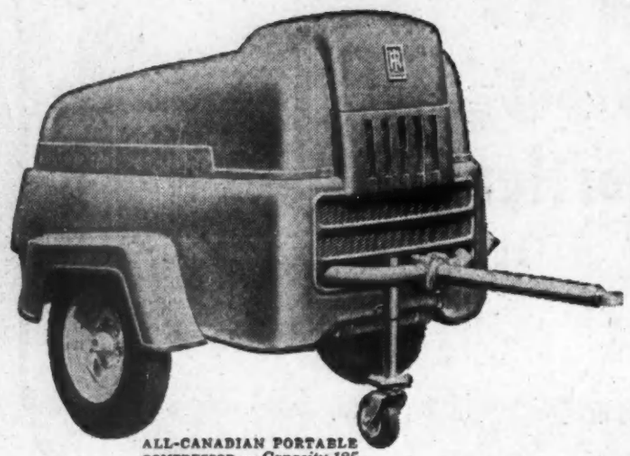
Housing plans are still unsettled. It is considered that it would be desirable to have adequate rental accommodation available, in or near Fredericton, to house the families of soldiers at the camp. And ideally this accommodation should be ready at the same time as the camp is ready for occupation. But whether this building will be undertaken by local and private initiative or whether the Government will have to take a hand, through Central Mortgage & Housing, is still uncertain. It might be a combination of both.

Some problem of labor is also anticipated. A considerable number of construction jobs will be open, both at the camp and at any associated housing project which may be undertaken. But the means of finding adequate labor — without all the expense of moving in and accommodating crews from outside — is another of the problems that remains to be settled.

Serving the Construction Industry

The Construction industry is busy these days, turning plans into facts. New roads and bridges are appearing throughout the nation . . . schools, hospitals and homes now exist where none existed before . . . newly built industrial plants, large and small, have begun producing for Canada. In its own way, the Construction industry is one of the foremost contributors to Canada's amazing growth.

As the demands on the construction industry have increased, the need for faster, more powerful, more efficient equipment has become more vital than ever. Canadian Ingersoll-Rand, always among the pioneers in developing and manufacturing superior construction equipment, continues to fill this vital need — as it has for over seventy years.



ALL-CANADIAN PORTABLE COMPRESSOR — *Capacity 125 cfm, selected as ideal for contractors, municipalities, public utilities. Light, compact and easy to move.*

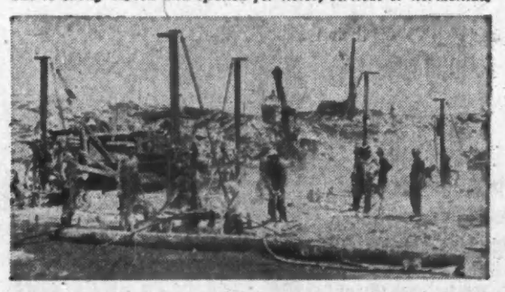
THE 3-40 AND 3-50 JACKHAMERS — *powerful rock drills thoroughly proven under widely varied conditions on road work, hydro-electric projects and other heavy construction jobs.*

QUARRYMASTER — *self-propelled drilling unit for heavy production quarry work or extra large rock-cuts. Drills holes up to 70 feet deep and up to and including 6 inches diameter.*

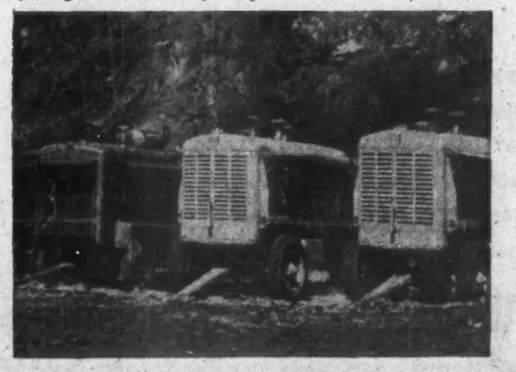
COMPRESSORS
JACKHAMERS
WAGONJACKS
WAGONDRILLS
QUARRYMASTERS

THE JHM WAGONJACK — *lightweight rock-drilling unit, easy to move and flexible for drilling at any angle. Ideal even on extremely rough ground.*

FM-2 WAGONDRILL — *for removal of large tonnages on rock cuts, the FM-2 Wagondrill is in a heavier class than the Wagonjack, but is easily moved and spotted for holes, vertical or horizontal.*



PORTABLE COMPRESSORS OF ALL SIZES — *Shown here: the 600 cfm Ingersoll-Rand Rotary Compressor and two 500 cfm models.*



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Here's Construction Security Record

Anglin-Norcross

Anglin-Norcross Corp., incorporated in 1931, is engaged in the general contracting and building business. Its subsidiaries include Anglin-Norcross Quebec Ltd., Anglin-Norcross Ontario Ltd., and Anglin-Norcross Maritime Ltd.

Annual report for 1953 has not yet been issued. In 1952, company showed a consolidated net profit of $458,943 ($324,239). Net earnings rose to $1,040,724 ($760,099), while depreciation was higher at $88,095 ($67,573) and income tax rose to $505,000 ($370,000).

At the end of 1952, outstanding capitalization consisted of $537,920 in 1% preferred stock $1 par; and 56,600 no par value common shares.

Bird Construct.

Bird Construction Co., Regina, is engaged in general construction work. Branches are operated at Winnipeg, Moose Jaw, Edmonton, Calgary and Lethbridge.

Net profit in 1952 (latest figures available) was $134,606, down 4% from 1951 net of $140,152. Earnings were equivalent to $434.21 per preferred share ($452.10 in 1951) and $5.54 per common share ($5.78). Dividends of $5 per preferred share and $2 per common share are being paid regularly each year, and an extra of 50c per common share has been paid each year since 1950.

Payroll in 1952 amounted to $2,659,314 compared with $3,307,048 in 1951. Expenditures for purchase of construction equipment amounted to $183,77? in 1952 and $266,576 in 1951.

Balance sheet at Dec. 31, 1952, showed bank loans of $2,072,566 ($1,666,930 a year earlier); earned surplus of $1,188,849 ($1,117,778); and issued capitalization of 310 5% cumulative redeemable preferred shares, par $100, and 24,000 n.p.v. common shares. Working capital was $757,191 ($644,335).

Building Prod.

Building Products Ltd. manufactures asphalt shingles and tiles, roll roofing, roofing felt, wallboard, insulating board and sidings, building papers, expansion joints, waterproof paints and cements, fire retardant coatings and allied products, under the trade names: B. P., Neponset, Ruberoid, Bird's, Vulcanite, Insul-Board, Insul-Bric, Insul-Board Dry Wall, Albi, etc.

Over 50 different types of roofing and other building products are marketed.

At Port Rouge, Que., the company operates a two-machine paper mill with additional facilities for converting part of this paper output into wallboard and insulating boards; at Montreal, a one-machine paper mill turns out roofing felt and shingles, and a roofing plant produces asphalt roofing, shingles and sidings and building papers; at Winnipeg, there is a one-machine paper mill with facilities for converting part of its paper output into wallboard and insulating board, and a roofing plant. Roofing plants are also operated at Hamilton and Edmonton.

Last June, company announced construction of a paper mill adjacent to its roofing mill in Edmonton. In addition to materials for its own use, various papers will be made for sale.

Company also has a rock-crushing and coloring plant at Havelock, Ont., quarries and a rock-crushing plant at Madoc, Ont., and warehouses at Toronto, Halifax, Montreal and Saint John.

At the end of last year, President L. S. Odell said that after taking into account the fact that manufacture of building construction materials is more or less a seasonal business, demand for the company's products was steady and in very good volume throughout 1953. In residential construction — main market for its class of materials — year-end figures will end up at a high level, he said.

He expected a high level of residential construction for 1954 but noted that upward pressure continues in wages, rail and trucking rates. Raw materials are in plentiful supply and look fairly stable at present levels, he said.

Net profit of $1,710,778 or $3.54 per share for 1953 was 9.4% higher than 1952 net of $1,564,101 or $3.24 per share. Dividends are being paid regularly at the rate of $1.80 per share per annum, on a quarterly basis.

Additions to fixed assets last year totaled $1,173,852. A paper mill at Edmonton and a warehouse addition at Hamilton are still to be completed. Operating costs remained relatively stable throughout 1953, said the president.

Brantford Roof

Brantford Roofing Co., Brantford, Ont., is a wholly-owned subsidiary of Dominion Tar & Chemical Co. It manufactures a full line of asphalt slate shingles, roll roofings, both plain and slate surfaced, insulated siding, carpet felts, asphalt felts, roof coatings, etc., which are sold to lumber yards, wholesale dealers, hardware and application companies and dealers.

Company also operates an asphalt emulsion plant, the product going into mastic floors, waterproofing, roof treatment and road surfacing material.

Plants are at Brantford and Thorold, Ont. (Brantford Felt & Paper Co.). The plant of a wholly-owned subsidiary, Brantford Roofing (Maritimes) Ltd., is located at Coldbrook, N.B.

Branch warehouses and sales offices are in Winnipeg, Toronto, Montreal, Saint John and Halifax.

Latest balance sheet published by company, dated Oct. 31, 1952, showed current assets of $1,428,919 ($1,361,196 a year earlier), total assets of $2,285,180 ($2,198,121), current liabilities of $604,995 ($550,931) and earned surplus of $801,938 ($733,943).

Capitalization outstanding at Oct. 31, 1952, included $430,000 3¼% and 4% first mortgage sinking fund bonds, Series A, due Nov. 1, 1960; 43,515 n.p.v. $1 cumulative convertible Class A shares; and 43,515 n.p.v. Class B shares. Working capital amounted to $823,924 ($810,265).

Canada Crushed & Cut Stone

Canada Crushed & Cut Stone Ltd., Hamilton, is one of the largest processors of crushed stone, chemical stone, agricultural limestone and high-grade dolomite in Canada. Crushed stone in large quantities is supplied to railways and to the construction industry.

Following incorporation in 1951, company acquired all the assets and undertaking of Canada Crushed Stone Ltd., all the outstanding shares of Queenston Quarries Ltd. and National Cut Stone Ltd., and controlling interest in Ritchie Cut Stone Co.

Control of Canada Crushed & Cut Stone Ltd. was acquired late in 1952 by Steetly of Canada Ltd. (see separate article) by purchase of 125,000 common shares for $1,062,500.

Company's two main plants are at Dundas and Hagersville, Ont. The two plants have a combined capacity of over 5,000 tons a day on a one-shift basis, and total tonnage in the two quarries is estimated at 110 million tons.

Along with Standard Paving & Materials Ltd. and Buffalo Slag Co., company formed National Slag Ltd. in 1953 to process blast furnace slag under an agreement with Steel Co. of Canada and other steel producers. Planned capital expenditures were estimated to be $1 million, including a processing plant to be built in Hamilton.

Consolidated net profit for 1952 was $225,080 after depreciation and depletion provision of $244,901 and taxes of $239,661. For the last eight months of 1951, net profit was $177,358. Earnings in 1952 were equivalent to $45.02 per preferred share and $1.03 per common share; in the eight-month 1951 period, $35.47 per preferred share and 85c per common share.

Dividends of $6 per share per annum have been paid regularly, on a quarterly basis, since Oct. 1, 1951. No dividends have been paid on common shares.

Canada Cement

Canada Cement Co. produces Portland cement, operating manufacturing plants in various parts of Canada in conjunction with unlimited deposits of limestone, gypsum and clay, the raw materials used in cement production. A subsidiary operates a stone-crushing plant.

Company handles about four fifths of total Canadian cement business, plus some export business. Its properties include manufacturing plants in Montreal East and Hull, Que., Belleville and Port Colborne, Ont., Fort Whyte, Man., Exshaw, Alta., and Havelock, N.B.

Since the war, company has conducted very large expansion programs, raising capacity by 75% to the present total of 17.5 million bbls. annually. Last year, it launched a program to double capacity at Fort Whyte and work on this is already well under way. Company hopes that this latter increase will be absorbed eventually as population rises in Manitoba and district and the present plant is to operate at full capacity during the construction period.

Capital expenditures in the year ended Nov. 30, 1953, totaled $3.9 millions, down sharply from $12.8 millions in 1951-52. They'll rise to about $10 millions in the current fiscal year, however, with most of this to be spent at Fort Whyte.

All plants operated continuously at full capacity throughout 1953 and production and sales showed a 19% gain from 1952. Net earnings climbed to $20,833,248 from $18,210,855, while net profit was up by 34.9% at $5,454,965 ($4,044,994). This was equal to $6.97 ($4.62) per common share.

Again in 1953, company claimed full capital cost allowances permitted by the Income Tax Act and depreciation above normal reduced net profit by $2,156,965 ($2,352,443 the previous year).

Outlook for 1954 was termed "reasonably promising" by President J. M. Breen, though a moderate decline in construction was expected. While defense construction will presumably require less cement in 1954, it was stated, "with continuing activity in power development work and industrial expansion, coupled with substantial house building and highway construction programs, the over-all demand for cement should be only moderately lower in 1953."

Working capital at Nov. 30, 1953, totaled $12,377,863, up sharply from $5,568,041 a year earlier. Cash and government bonds rose to $7,089,833 from $542,848.

Canadian Dredge

Canadian Dredge & Dock Co., Midland, Ont., is engaged in general dredging work, construction and improvement of harbors, canals, breakwaters and channel facilities, and other marine work on the Great Lakes-St. Lawrence River waterway and on the Atlantic coast. Company also engages in general construction and repairs.

Floating plant consists of several units, comprising hydraulic, bucket ladder, dipper and clam-shell dredges, steam and diesel tugs, drills, derricks, submarine rock drills, scows, and general contractors' equipment. A dry dock for marine construction and repairs is maintained at Kingston, Ont.

Investment of $600,000 in an unidentified company has shown a very substantial improvement since purchase was made, said Vice-president C. R. Redfern in company's report for 1952.

Net profit of $164,600 or $1.74 per common share in 1952 was 38.3% higher than 1951 net of $119,053 or $1.26 per share. Earnings for 1952 were substantially reduced by provision made in the accounts for any loss there might be on unfinished contracts.

Dividends at the rate of $1.70 per share per annum have been paid regularly on a semiannual basis since June 14, 1951.

Balance sheet at Dec. 31, 1952, showed bank loan of $960,000 ($461,100 a year earlier), earned surplus of $2,010,089 ($2,006,607), and 94,775 outstanding n.p.v. common shares. Working capital amounted to $1,353,357 ($1,375,802).

Consol. Oka

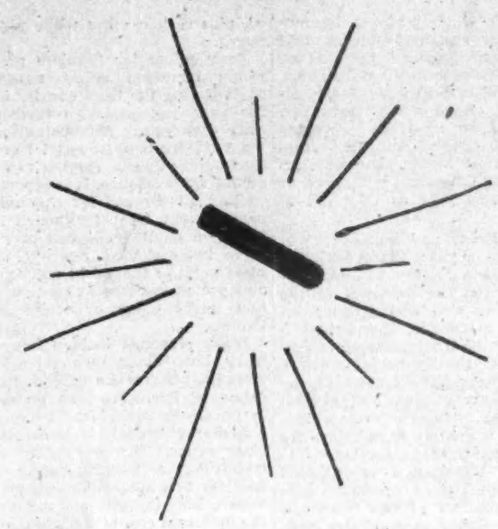
Consolidated Oka Sand & Gravel Co. owns sand and gravel deposits and supplies material used for the building trade, as well as operating a fleet of tugs and scows and renting construction equipment. The company's products are used for sand blasting, moldings, golf courses, water filtration, road making, sidewalks, and bridge construction as well as various other industrial purposes.

Sales in 1952-53 practically equalled production, which was somewhat reduced due to the smaller fleet employed and shorter operating season. Net profit for the fiscal year ended April 30, 1953, was $7,399 ($16,155 in 1952). Depreciation was $15,784 ($17,142). Working capital at April 30, 1953 increased to $131,425 from $123,944.

Outstanding capitalization of the company at April 30, 1953, consisted of $95,475 cumulative participating redeemable $5 par preference shares and 41,632 no par value common shares.

(Continued on page 51)

FROM THIS SMALL BEGINNING . . .



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RAWLPLUG "fixing" devices are used in the most important construction projects all over the world and the Rawlplug policy of designing and manufacturing these devices to the highest standards, has made Rawlplug the world leader in this field.

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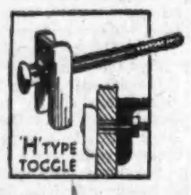
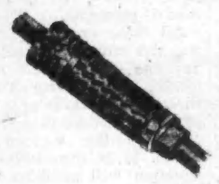


Rawlplug "H" type toggles FOR HEAVY DUTY are used wherever it is difficult to reach reverse sides of walls. The squared shoulders allow no turn of the bolt when tightening the nut. ANOTHER proven Rawlplug fixing device.



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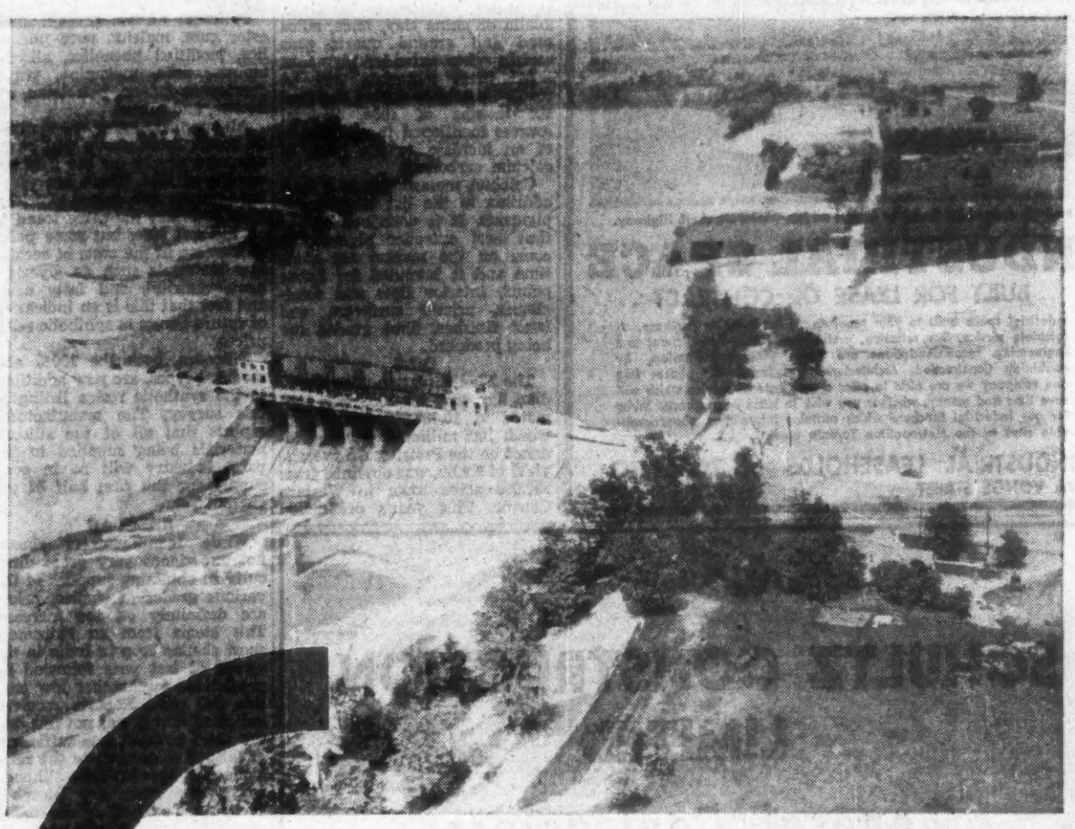

is for conservation

Control of our natural watersheds averts the tragedy of flood and erosion, protects our bird and wildlife.

Completed only this spring, fifteen miles northeast of London, Ontario is the site of the Fanshawe Dam, first of the flood control units built under the Upper Thames River Conservation Authority: Chairman J. Cameron Wilson, M.D., and Secretary-Treasurer, Leonard M. Johnson.

is also for cement

Over 200,000 barrels of Pyramid Portland cement went into the Fanshawe project. Consulting Engineers were H. G. Acres & Co. of Niagara Falls; General Contractors, Foundation-Mannix Ltd., Toronto. Red-D-Mix Company of Hamilton supplied the concrete to the job and Cementation Co. of Canada Limited did the grouting. Pyramid Portland is produced by the expanding facilities of the St. Marys Cement Co. . . . striving constantly to meet the increasing demand of Canada's construction industry with this high quality product.

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ST. MARY'S PYRAMID PORTLAND CEMENT

Paint: Our $110 Million Industry

Good Supplies, Sales in 1954, Keener Selling

By E. L. BARRY
Canadian Paint Varnish & Lacquer Association

1953 has been a good year for the paint industry. The latest sales figures available covering the period up to the end of October bring the tenth month total to $95,597,207, which is over $8 millions ahead of the same period in 1952. The twelve month total for 1953 will approximate $110 millions. The year just past has seen the first reporting of latex emulsion paints as a separate category in the monthly figures issued by the Dominion Bureau of Statistics and sales of latex paints for the year will run between $7 and $8 millions.

Import-export business in finished paint products was small during 1953, as it has been in previous years. There was, however, considerable export of certain raw materials and many other raw materials cannot be obtained from Canadian sources and must be imported.

About 98% of the protective coatings produced by the Canadian industry are sold on the domestic market.

What then, are sales prospects for 1954?

Sales are contingent upon such factors as the volume of production of industrial items requiring protective and decorative finishes, the level of consumer income, the volume of housing and new industrial construction and, to a lesser degree, the level of defense spending.

Let's look at each of these in turn.

Total new building construction for 1953 is estimated at $2.1 billions, an increase of 13% over 1952. The volume of housing starts approximated 100,000 units.

Construction to Continue High

In a recent address, O. J. Firestone, Economic Adviser to the Department of Trade and Commerce, stated that he felt that this high level of construction would continue throughout 1954 as housing shortages still exist, as population is growing rapidly, and as there has been some liberalizing by the Government of the mortgage credit situation.

This represents a large market for paint and varnish products and will provide a sizeable amount of business for the industry. It's worth considering too, that many of the houses built in the years immediately following the war are now in need of repainting.

Government and financial sources feel that the present trend of high personal incomes will be sustained during 1954 and that, provided there is no sharp increase in the price index, this will help to offset the leveling off of the rate of expansion of consumer credit and save the durable goods industries from any serious slump. Generally, it's felt that Canadians will spend as much this year as they did in 1953.

Prices and Supplies

Twice a year, the Association prepares a Survey of Raw Materials for the members of the paint, varnish and lacquer industry in Canada. The purpose is to give the industry some indication of the immediate future from the point of view of the prices, availability, and general trends affecting those raw materials which are essential to the continuance of production.

This information is gathered from the chief manufacturers and suppliers of raw materials for the Canadian protective coatings industry and is a condensation of their opinions with regard to their individual positions over the next six months.

The raw materials outlook for the first half of 1954 is good. Virtually all raw materials required by the paint industry will be in adequate supply with no acute shortages anticipated in any commodity. The only small shadows on this otherwise bright picture stem from the possibility of delayed deliveries in some cases, the occasional price increase, and minor shortages of certain materials such as shellac.

To obtain the information which follows, an approach was made to nearly sixty manufacturers who supply raw materials to the paint and varnish industry in Canada. They were asked to comment on a specific list of materials which included almost everything used by the paint industry. Better than two thirds replied so that the information which follows constitutes a comprehensive and up-to-date appreciation of the raw materials position for the first six months of 1954.

PRIME PIGMENTS

White pigments used by the paint and varnish industry in this country include the following: antimony oxide, basic carbonate white lead, dry and in oil, basic silicate white lead, basic sulphate white lead, lithopone (30% zinc sulphide), titanium dioxide, extended titanium dioxide pigments, zinc oxide — lead free and lead-ed, plus certain other white pigments.

Basic prices for titanium pigments increased approximately 6½% during the third quarter of the year just past. No further price changes are anticipated for the next six months apart from fluctuations due to varying rates for foreign exchange. It is reported that all demand for titanium pigments can be met although it has been pointed out that shortages have existed recently in some parts of the world and any unexpected increase in consumption might delay deliveries in Canada.

Black pigments include lampblack, bone black, carbon black, graphite, plus certain other black pigments. There are all reported to be freely available. The sole Canadian manufacturer of carbon black reports the probability of an increase in 1954 of the price of medium and low color channel blacks. This increase stems from the increased cost of the gas used as a raw material for the manufacture of carbon black by the channel process. The supply will be ample for all normal needs.

Colored pigments include C.P. chrome yellows and oranges, chrome yellows and oranges (extended), zinc chromate, other yellow and orange pigments, C.P. chrome greens, chrome greens (extended), other green pigments, toluidine reds, para reds, other organic red pigments, iron blues, ultramarine blues, other blue pigments, iron oxides, ochres, siennas, umbers, red lead, including orange mineral, litharge, metallic powders (aluminum, bronze, etc.), all other colored pigments.

All these are freely available and this situation is expected to continue during the next six months. The price trend for chrome is upwards and this will probably produce increases in the price of the various chrome colors. It is expected that this situation will stabilize itself by May or June.

Aluminum paste is in good supply and the Canadian price has recently been reduced to meet British competition which has become effective during the latter part of 1953.

Bronze powder is in good supply with prices indicated as steady for the next six months.

EXTENDER PIGMENTS

Pigments listed in this grouping include aluminum stearate, asbestine or talc, barytes, blanc fixe, calcium carbonate (whiting and chalk), calcium sulphate (gypsum), calcium metasilicate, koalin or china clay, mica, silica sand and ground quartz plus certain other extender pigments.

All these materials will be readily available during the first six months of 1954. Several sources mentioned the likelihood of an increase in the price of calcium carbonate.

Calcium metasilicate is a new addition to the list of extender pigments. It is described as the first new extender pigment to come on the market for some time and is intended for house paints, interior flats and semi-glosses, primer surfacers, and latex finishes. Two grades are being produced.

OILS

The Flax Situation. The Canadian flax crop for 1953 was estimated at 10,787,000 bushels, of which 10.2 million bu. were produced on the Prairies. An average yield of 9.9 bu. was obtained from 990,000 acres sown in Western Canada. This year's production was considerably below the large 1952 yield of 12 million bu. obtained from 1,124,000 acres at a 10.8 bu. per acre yield. It is noted, however, that with the exception of the previous year's results, the average yield per acre for 1953 was the largest since 1942.

As a result of the heavy 1952 crop, the Canadian flax carryover on August 1 last, stood at the sizeable figure of about 3 million bu. This was still below the 3.4 million average for the period 1943-52.

The Canadian Wheat Board placed flax under open delivery quota early in the new season because marketing prospects appeared reasonably bright. Due to the fact that other cereals were under limited delivery quotas, producers delivered flax freely so as to obtain ready cash. This is shown by delivery totals for the Aug. 1-Nov. 26 period of 1953 which disclose that 5.8 million bu. of flax had been marketed by Western producers during this period. This represented about 80% of the expected delivery total for the entire season as it has been estimated that only approximately 1.1 million bu. remain to be delivered.

Visible stocks of Canadian flax as of Dec. 2 amount to 5,385,000 bu. This is somewhat below last year's position at the same time when 5,673,808 bu. were held.

Linseed oil is freely available and supplies are adequate for all the anticipated demands of protective coatings manufacturers.

Castor oil (raw, dehydrated, hydrogenated) is reported to be freely available.

Tung or Chinawood oil is in adequate supply. Most of Canada's tung oil comes from Hong Kong via the United Kingdom.

Fish oils are freely available.

Oiticica oil used in North America comes chiefly from Brazil. Demand for it in Canada is not large but it is reported to be freely available.

Soyabean oil supplies are reported as adequate for 1954.

Tall oil is freely available.

Coconut oil supplies are reported as adequate.

RESINS

Natural Resins: Supply of natural resins is seen as adequate for the comparatively low demand for them in Canada at the present time. Into this category may fall Dammar, Copal, Kauri and Manilla. Most manufacturing firms in the paint and varnish industry now utilize substitute resins instead of natural gum products.

Rosin is in plentiful supply.

Synthetic Resins: These include ester gum, maleics, pure phenolics, modified phenolics, alkyds, amines, urea, melamine, vinyl, coumarone-indene, petroleum, silicones, and others.

All suppliers agree the synthetic resins listed above will be in adequate supply for the first six months of 1954. There are varying opinions with regard to prices. Most feel that the price trend is on the soft side, but some point to increase in the costs of certain raw materials such as glycerin, pentaerythritol, and fatty acids and feel that this is an indication of future boosts in synthetic resin prices.

Silicones, both the 100% and modified types, are new additions to the synthetic resins listing in this survey. The manufacturer reports that all of the silicone materials being supplied to the paint industry will be in good supply for the first half of the current year.

SHELLAC

While manufacturers should not experience very great difficulty in obtaining supplies of the various grades of shellac, prices are definitely on the increase. This stems from an extremely short shellac crop in India in the spring of last year followed by predictions for another low crop this fall past. Reports received indicated that it was not felt that the short position was sufficiently serious to necessitate the reintroduction of substitutes although prices for bone dry bleached shellac are quoted as 47c lb. in comparison with quotes of 43c lb. some three months ago. The harvesting of the new Indian crop during the latter part of March should produce an easier supply situation by the half-year mark.

SOLVENTS

Into this general classification may be included the following: turpentine, petroleum distillates, toluol, xylol, benzol, coal tar solvents, acetone, amyl acetate, butyl acetate, ethyl acetate, ethyl alcohol, methyl alcohol, isopropyl alcohol, n/propyl alcohol, n/ propyl acetate, creosote, amyl alcohol, butyl alcohol, methyl ethyl ketone, and others.

The supply position with regard to solvents is good. In general, all of the materials listed above are available and prices are reported as firm. Many solvents are now being produced in Canada and in certain instances production in this country is sufficient to take care of Canadian demand.

PLASTICIZERS

Into this category falls dibutyl phthalate, dioctyl phthalate, plus other phthalate and phosphate plasticizers. These are all reported to be in good supply. In addition the supply and availability of polyvinyl plasticizers is ample and price increases are not anticipated.

One manufacturer reports new production facilities at Cornwall, Ontario, for cyclic phthalate plasticizers and that these products of Canadian manufacture are freely available.

DRIERS

In this grouping have been included lead naphthenate, manganese naphthenate, cobalt naphthenate, zinc naphthenate, calcium naphthenate, zinc octoate, cobalt octoate, manganese octoate, lead octoate and calcium octoate.

All these are reported to be in good supply and only minor price changes are expected. Prices of these materials are generally subject to fluctuations in the prices of the particular base metal involved. A recent increase in the price of cobalt, therefore, produced a price increase for cobalt naphthenate driers.

FUNGICIDES

Included here are copper naphthenate and pentachlorophenol which are reported to be freely available.

CELLULOSE

Under this grouping come nitrocellulose, carboxymethylcellulose, ethyl cellulose and cellulose acetate. These are all reported to be freely available.

SYNTHETIC LATEXES

Under this heading are grouped styrene-butadiene copolymer, polystyrene, vinyl vinylidene copolymer, polyvinyl acetate and acrylic polymer types of synthetic latexes.

Styrene-Butadiene, polystyrene and polyvinyl acetate latexes are all reported to be in good supply. Acrylic polymer is available but the price is apparently high. On January 1, a tariff was applied against the importation of synthetic latexes. There is a good possibility of a price rise as not all types can be obtained as yet from Canadian sources.

FATTY ACIDS

The fatty acids section is a new addition to the semi-annual Raw Materials Survey. Fatty acids used by the paint industry in Canada include: coconut fatty acids, cottonseed fatty acids, 12-hydroxy stearic acid, oleic acids, soya fatty acids, stearic acids.

The various grades of these acids are reported to be freely available from Canadian sources, or in certain specialized cases from the United States. Imports from the United States are, however, subject to duty. The last quarter of 1953 saw increases in the prices of certain fatty acid raw materials and there is a good probability that prices of the end products will be increased. Despite this, no problems with regard to supply are anticipated during the first six months of the current year.

MISCELLANEOUS

Pentaerythritol: This item is now available in adequate quantities from Canadian sources and it is reported that the price will remain fairly stable throughout all of 1954. Pentaerythritol was recently ruled by the Department of National Revenue as of "a class or kind made in Canada" so that duty is now payable on all imports of this commodity.

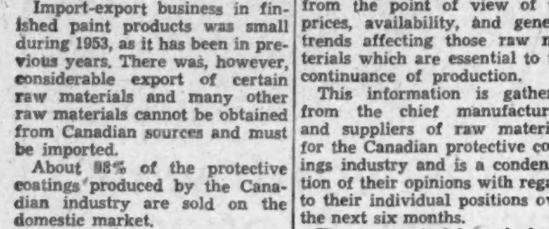
Glycerin: The somewhat short situation of six months ago seems to have improved and glycerin supplies are reported as adequate for the requirements of the Canadian paint and varnish industry. In the replies received, specific mention was made of glycerin 88% (crude) which is readily available.

Casein: This item is reported as freely available.

Chlorinated Rubber: The supply situation is reported as satisfactory with United States and European material being offered. To date, European material has not made much of an inroad into the Canadian market due to a price differential.

Formaldehyde: There is ample Canadian production to take care of all demand and prices appear to be firm.

Phthalic Anhydride: This raw material will be in good supply for the balance of the year. No price changes are contemplated at the present time.



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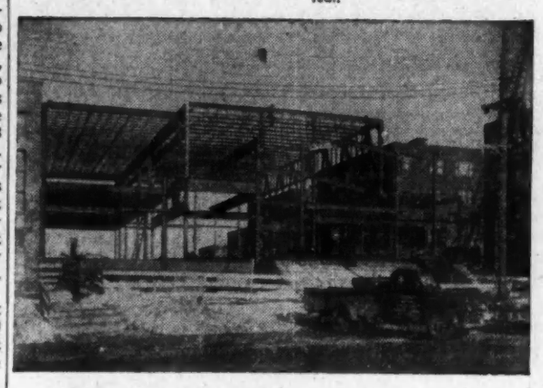
● ABOVE: Warehouse recently erected for Standard Electric Co. on Cote de Liesse Rd., Montreal

● BELOW: Addition recently erected for Young Israel Synagogue, Hillsdale Ave., Montreal.



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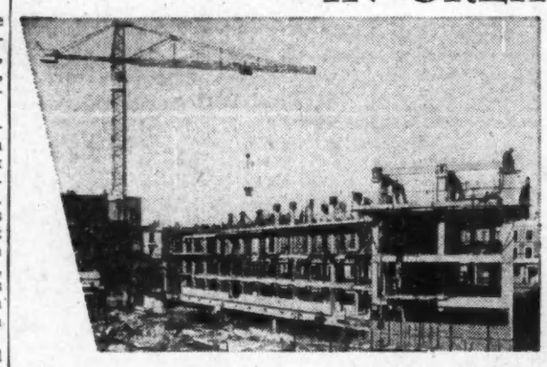

Construction in progress on a section of an 8-block apartment building for the Westminster City Council, London. This illustrates a new construction process, developed by Rush & Tompkins in conjunction with the structural engineer W. V. Zimm & Associates, London, England and Toronto, in which all beams are pre-cast and lowered in place by crane, the remainder of the work being 'in situ' concrete.

IN SOUTH AFRICA

Graders and scrapers move through rugged country on a section of the 14 mile Durban - Maritzburg highway, constructed for the Natal provincial administration by Rush & Tompkins. In addition to the roadbed, the contract included reinforced concrete bridges and culverts.

IN CEYLON

Under construction is the Administration Block for the Faculty of Medicine, Colombo University, completed in the latter part of 1953 by Rush & Tompkins.

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Progress Reports on the Paint Firms

Brandram-Hend.

Brandram-Henderson Ltd. manufactures a wide range of paint, dry colors, enamels, stains, varnishes etc.

Company operates a varnish plant at Montreal, a paint plant at Halifax, and through Pacific White Lead Co. — a subsidiary — a paint plant in Vancouver. Company also carries on a considerable export trade.

Following sterling import restrictions, an agreement was made with British Paints Ltd. of Newcastle-on-Tyne to manufacture all B.H. products in England on a royalty basis.

Control of the company was acquired in 1951 by Roger Belanger Inc., a Montreal investment firm through purchase of the common share holdings of Norman Holland.

Consolidated net profit for the year ended Sept. 30, 1953, amounted to $82,556, with profit from operations amounting to $175,426. The company operated at a loss in 1952.

"The great improvement has resulted from an internal reorganization of administrative, sales and production procedures. A constant study of current developments in paint technology has been a further factor in the success of the year's operations," says President John M. Pritchard.

Outstanding capitalization at Sept 30, 1953, amounted to $25,000 4% bonds due June 1, 1947-54; $550,000 sinking fund 4% bonds due June 1, 1961; $338,000 sinking fund debentures due Oct. 1, 1963; and 50,000 npv common shares.

Can. Varnish Co.

Canada Varnish Co., Leaside, Ont., formerly manufactured paints, enamels, varnishes, lacquers and allied products, specializing in production of coating and insulating varnishes, etc., for electrical equipment. Its business —land, buildings, machinery, equipment, trademarks, inventory and corporate name—was sold early in 1953 for $375,000 to a new firm named Canada Varnish Ltd., a private company under the general management of R. E. Edwards, president of Certified Paints Ltd.

At time of sale, Chairman N. M. Davis of Canada Varnish Co. told shareholders that directors were considering the acquisition of another business. No further announcement of plans in this connection has yet been made by the company, which has now changed its name from Canada Varnish Co. to Canvar Industries Ltd.

Litigation was begun last year by two large shareholders, R. W. Phelps and Otaco Ltd., contesting the right of Canada Varnish Co. to dispose of its business or purchase another business without redeeming the prefererice stock or winding up the company's affairs altogether. This action was settled out of court late in 1953.

Subsequently, a small shareholders' protective committee was set up by certain preference shareholders, under the chairmanship of R. A. Daly. After negotiating with the company, the committee recommended acceptance of company's redemption offer of $23 per preferred share. It is believed that most stockholders have now accepted this offer.

Inter. Paint

International Paint (Canada) Ltd, manufactures anti-corfosive and anti-fouling compositions, varnishes, and other products, general marine, industrial, railway and household paints, enamels and aircraft finishes. It is one of a group of international companies, the parent of which is International Paint of London, England, and has exclusive rights, for Canada, to all the trademarks, patents, formulae and secret processes of the parent organization. Through its parent firm, the company is associated with agencies in over 300 points throughout the world. The Canadian subsidiary operates plants in Montreal, while another associated company International Paint (Western) makes similar products in Vancouver.

The company's net profit of $128,758 for the year ended Sept. 30, 1953, was 45.9% higher than the previous fiscal year's net of $88,111. Capital expenditures were $100,377.

Chairman Frank M. Ross reports that sales increased substantially, but operating costs remained high and are expected to increase in 1954.

A newly constructed $70,000 warehouse in Halifax went into operations this year, to facilitate distribution in the Maritimes. Working capital at Sept. 30, 1953 amounted to $1,497,557, as compared with $1,446,753 at the end of the previous fiscal year.

Outstanding capitalization of International Paint (Canada) at Sept. 30, 1953, consisted of $180,000-3½% debentures due Dec. 1, 1952-58; $1 million 6% accumulative participating preferred stock par value $20; 20,860 no par value Class A shares and 7,140 no par value Class B shares.

Imp. Varnish

Imperial Varnish & Color Co. manufactures varnishes, lacquers, enamels, paints, dry colors and protective coatings. Products are marketed under the trade names Flo-Glaze and Imperial, and distributed by company's sales organization in Ontario, through wholesalers in other parts of Canada, and directly to large industrial consumers. Plant is in Toronto.

Capital expenditures in the year ended Aug. 31, 1953, were over $150,000. Sales for the year were highest and profits second highest in company history, says President G. C. McEwen.

Net profit of $201,793 was 27.6% higher than the 1951-52 fiscal year's net of $158,095. Earnings were equivalent to $18.82 ($14.74 the year before) per preferred share and $3.46 ($2.65) per common shares. After considering the participating feature of the preferred stock, combined preference and common shares earned $3.14 ($2.46).

Quarterly dividend on the common stock was increased to 30c per share last March and has been paid regularly since. Previously, 25c per share was paid quarterly from Dec. 1, 1948, to Dec. 1, 1952. On the preference shares, dividends have been paid quarterly at the rate of $1.50 per annum since Dec. 2, 1940.

Capitalization outstanding at Aug. 31, 1953, consisted of 10,722 n.p.v. preference shares, $1.50 cumulative, participating, redeemable; and 53,610 n.p.v. common shares. Earned surplus stood at $1,116,053 ($997,355) and working capital $1,074,553 ($1,044,225).

Murphy Paint

All the assets and facilities of Murphy Paint Co. were acquired in June, 1952, by Canadian Pittsburgh Industries Ltd.

This company's parent, Pittsburgh Plate Glass Co. of Pittsburgh, Pa. had acquired a substantial interest in the company in 1943-44 and followed this up in 1952 with an offer of $32 per share for the outstanding common stock that it did not already hold.

Murphy Paint now operates as a division of Canadian Pittsburgh Industries. The company produces paints, varnishes, lacquers and many finishes for all general, commercial and industrial purposes with plants located at Montreal, Toronto, Windsor and Vancouver.

Canadian Pittsburgh is a wholly owned subsidiary of Pittsburgh Plate Glass. Its other sections include the Hobbs Glass division, Toronto, distributing paint, glass, brush and metal store fronts and the Pennvernon division with a window glass plant near Montreal, Que.

Financial statements of Canadian Pittsburgh are not submitted for publication.

Scarfe & Co.

Scarfe & Co., Brantford, Ont. manufactures and distributes a complete line of varnishes, paints, enamels, lacquers, polishes, waxes and allied products. Company maintains 11 sales branches in Ontario, one in Winnipeg and one in Montreal.

Net profit for 1952 (latest figures released by company) was $77,979, 36.5% lower than 1951 net of $122,862. Earnings were equivalent to $2.23 per Class A share ($3.51 in 1951) and 95c ($1.81) per Class B share. Quarterly dividends of 20c per Class A share and 10c per Class B share are being paid regularly.

Company spent approximately $40,000 on fixed assets in 1952.

Capitalization outstanding at Dec. 31, 1952, consisted of 35,000 Class A 80c cumulative preferred n.p.v. shares, and 52,500 n.p.v. Class B shares; combined book value of stock was $500,000. Earned surplus was $910,063 ($831,084) and working capital $997,303 ($993,418).

Sherwin-Williams

Sherwin-Williams Co. of Canada Ltd. manufactures paint, varnishes, colors, stains, lacquers, enamels, Super-Kem-Tone, Kem-Tone, Kem-Glo, lead products, chemicals, litharge, dry colors, linseed oil, dyes, insecticides, herbicides, fungicides, and industrial, railway, marine, and transportation finishes. The company sells its own products and its purchases are confined entirely to raw materials.

Sherwin-Williams plants — including those of four wholly owned subsidiaries — are located as follows: Sherwin-Williams itself at Montreal and Winnipeg; Martin-Senour at Montreal and Vancouver; Lowe Bros. at Toronto; Canada Paint Co. at Montreal and Winnipeg Paint and Glass Co. at Winnipeg.

A plant at Red Mill, Quebec, produces bog oxide ore and zinc. Other facilities include two linseed oil mills, dry color works, two insecticide manufacturing plants, pyroxylin lacquer plants, a lead corroding plant, various factories for printing and manufacturing boxes, barrels, etc. and a power plant at Montreal.

Total sales volume for 1952-53 was, by a substantial margin, the highest in the company's history and this fact contributed to the general approved operating results, Chairman A. W. Steudel states.

Profits for fiscal year ended Aug. 31, 1953, increased to $1,195,095, $585,554 in 1952.

Consolidated earnings from operations for the year rose to $3,561,319 from $2,322,962. Earnings per share were $34.54 ($16.92) on the preferred and $4.24 ($1.53) on the ordinary stock. Working capital at Aug. 31, 1953 increased to $9,071,595 from $8,314,946.

Kem products are stated to have continued their remarkable advances in consumer acceptance while the standard branded lines also showed a steady growth in public demand.

At the company's annual meeting in December, shareholders were told that so far in the current fiscal year, business had been holding up well, and while the company did not want to predict too far in the future, it expressed optimism for the balance of the year.

Outstanding capitalization at Aug. 31, 1953, consisted of $3,460,000-7% cumulative $100 preferred stock, and 224,720 no par value ordinary shares.

They Study Soil Formation To Speed Up Construction

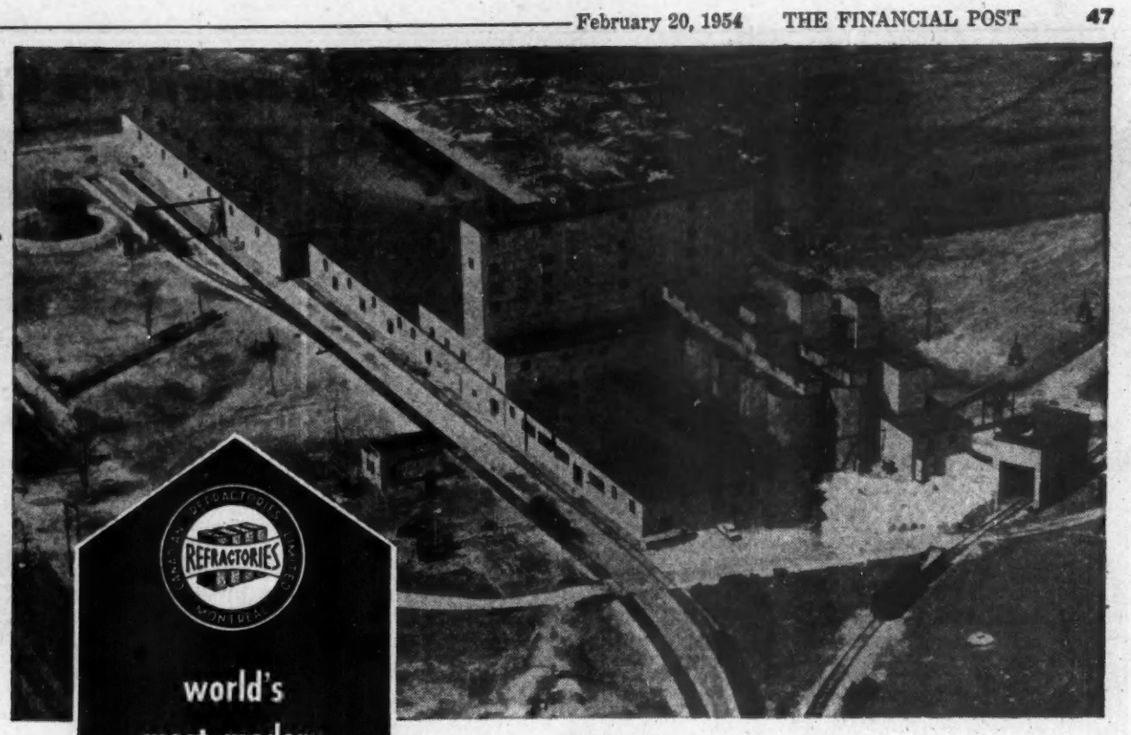
Ninety engineers, geologists, and soil scientists from across Canada attended the Seventh Annual Canadian Soil Mechanics Conference in Ottawa, sponsored by the Associate Committee on Soil and Snow Mechanics of the National Research Council to discuss soils as engineering materials.

Many interesting activities in Canadian work in this field were reported. C. F. Ripley, consulting engineer from Vancouver, described various soil formations encountered in British Columbia and the engineering problems associated with such soils. Dean R. M. Hardy, Dean of Engineering of the University of Alberta, spoke on studies in the electro-osmosis of soils under his direction. He cited one instance where this principle was used successfully in the excavation of a deep shaft in which a layer of water-bearing sand was encountered. Other work involved the application of electro-osmosis to assist in the injection of lignosol into soil to limit frost heaving.

R. Peterson, soil mechanics and materials engineer of the Prairie Farm Rehabilitation Administration, discussed the stability of slopes in plastic clays, with particular reference to earth dam construction. The Department of Transport, Ottawa, has prepared a freezing index map of Canada from which it should be possible to predict frost depths for many areas. E. B. Wilkins of that department described this map and its uses but pointed out that it is based on only five years' observations and does not include areas of Ungava and large sections of the Northwest as there were no records available for these regions.

Dr. G. G. Meyerhof of the Foundation Co. of Canada described an investigation his company had conducted for the Quebec Streams Commission on the landslide at Rimouski, Quebec. Dr. Meyerhof discussed the causes and mechanism of this slide which occurred in August, 1951, and resulted in the damming of the Rimouski River for a short time.

Canadian delegates to the Third International Conference on Soil Mechanics and Foundation Engineering reported on the proceedings of the Conference. Dr. N. W. McLeod, Consultant to the Department of Transport, and N. D. Lea, Foundation Company of Canada; G. C. McRostie, consulting engineer, Ottawa, and W. R. Schriever of the Division of Building Research, National Research Council, described the technical and business sessions of the International Conference. Six Canadian papers had been presented to the international gathering which was held in Switzerland in August, 1953.



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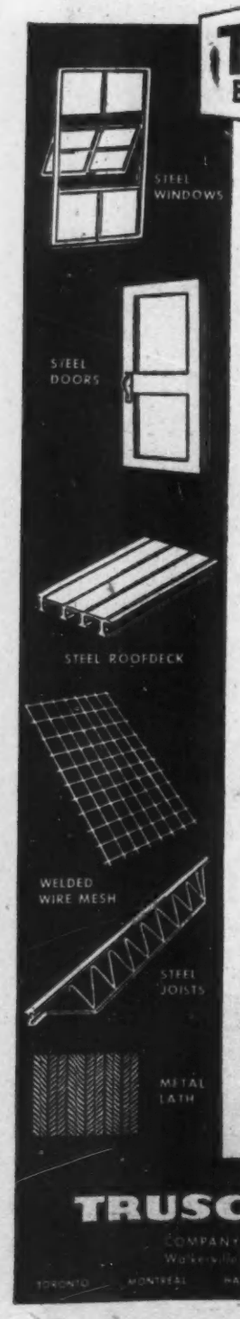

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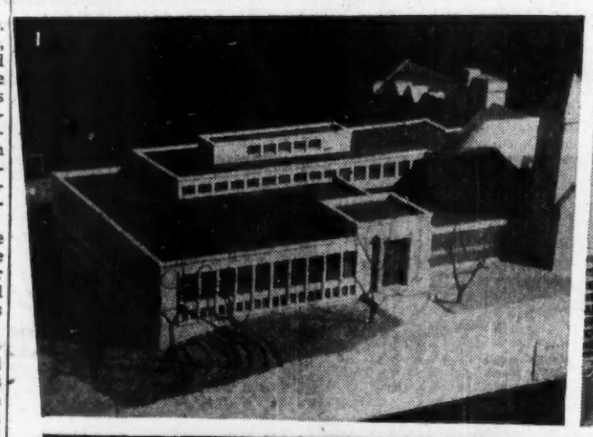
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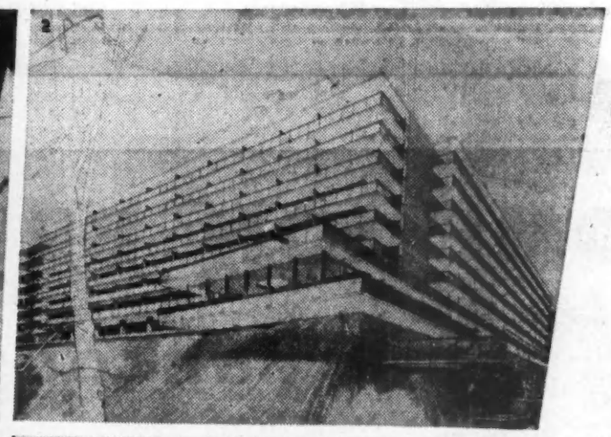
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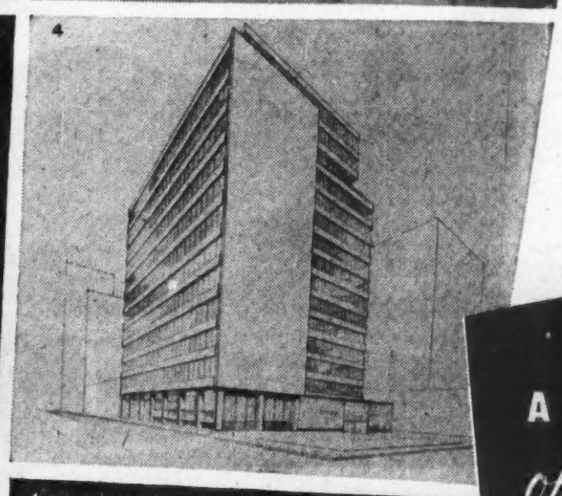
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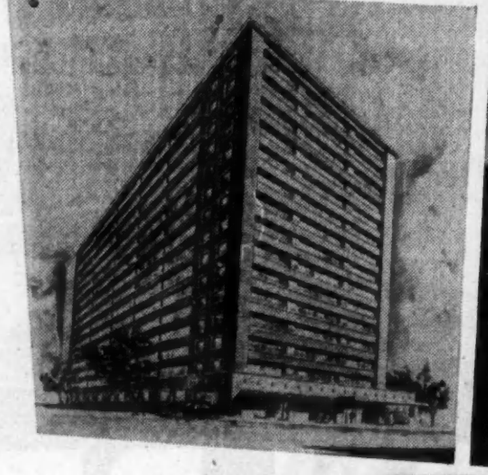
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A CLEAR VIEW of Canada's Newest Buildings WITH WINDOWS by WILLIAMS & WILLIAMS

(1) Library: University of Toronto
Architects: Mathers and Haldenby
Contractors: J. L. E. Price Ltd.—Toronto-Montreal

(2) The Benvenuto Apts. (L. S. Yolles) Avenue Road Hill —Toronto
Architects: Page and Steele

(3) Confederation Life Association: Head Office—Toronto
Architects: Marani & Morris
Contractors: Angus Robertson Ltd.—Toronto-Montreal

(4) Richmond Street Office Building—Toronto
Architects: Page & Steele
Contractors: Yolles & Rotenberg Ltd.—Toronto

(5) Guy Towers Inc.—Montreal
Architects: Greenspoon, Freedlander & Dunne
Contractors: Louis Donolo Inc.—Montreal-Toronto

(6) Manufacturers Life Assurance Corp.: Head Office—Toronto
Architects: Marani & Morris
Contractors: Anglin-Norcross Corp. Ltd.—Toronto-Montreal

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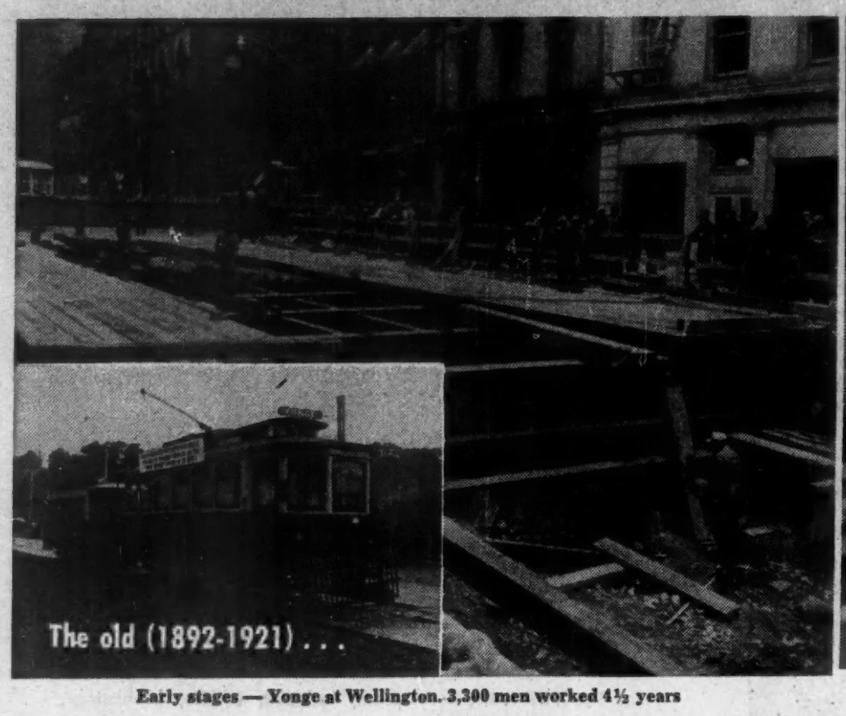
Here's How The First Canadian City To Go Underground Is Doing It

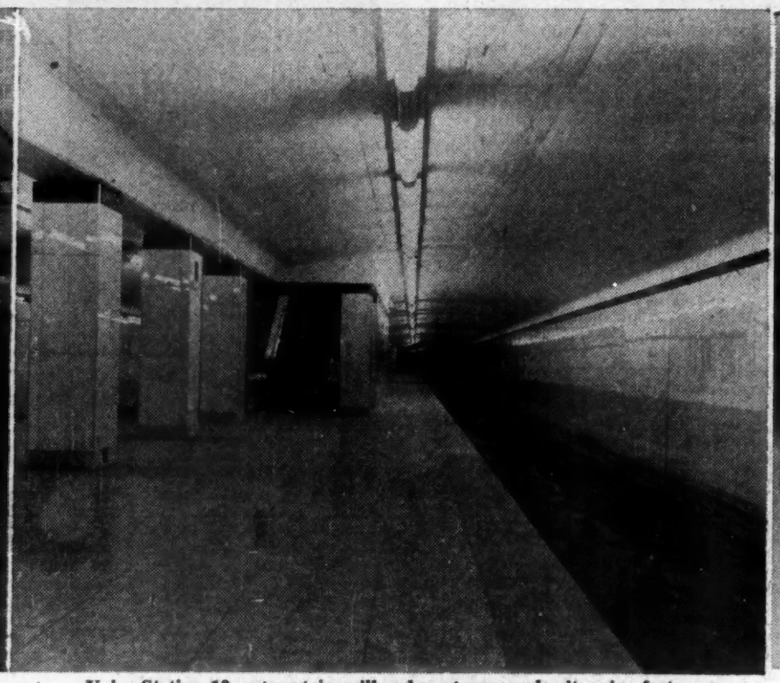


Early stages — Yonge at Wellington. 3,300 men worked 4½ years

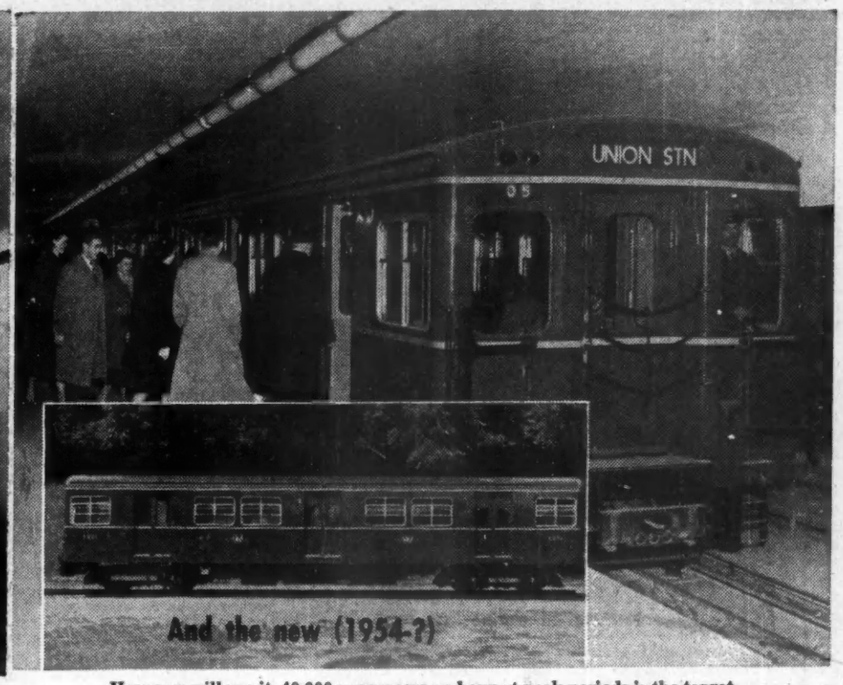
Pile-driver in action. 12 in. H-beams formed the neat line of the tunnel.

Part of the open cut at Davisville, 1,700,000 cu. yds. of earth were removed.

The finished job. 104 cars will run. Each can carry 113 passengers.



Union Station. 13 motor-stairs will make entrance and exit easier, faster.



How you will use it. 40,000 passengers an hour at peak periods is the target.

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The new Granville Street Bridge in Vancouver gives Canada its first 8-lane highway bridge.

Length of Steelwork:	1,773 ft.
Longest clear span:	397 ft. 6 ins.
Weight of structural steel	8,700 tons *(approx.)
Weight of reinforcing steel	5,230 tons (approx.)

The steelwork for this magnificent cantilever structure was erected by Dominion Bridge Company, Limited. All fabrication was carried out in Vancouver.

*5,310 tons by Dominion Bridge Company, Limited, Vancouver.

Reinforcing steel for the piers was made up in cages in the Dominion Bridge shops, and then transported bodily to the site. This unusual procedure saved valuable time and effected substantial economies.

DOMINION BRIDGE COMPANY LIMITED

PLANTS AND OFFICES THROUGHOUT CANADA

Toronto's Fifty-Million-Dollar Hole

March 30 Opening Will Cap Years of Planning, Building

London, Moscow, Paris, New York, Chicago, Glasgow—they all have subways. Each is distinguished for something different: London for the intricacy and efficiency of its service; Glasgow for the comparatively few people who use it; New York for the tremendous blasts of air that come up through the street vents each time a train passes along the tunnel, and so on.

On March 30, Toronto will have Canada's first subway in operation. What will be its distinguishing feature? Will it be the cleanest, the fastest, the most beautiful, the best organized, the best built, the cheapest? Will it knock all the others into a cocked hat? Be held up as an example to the rest of the world as being everything a subway should be?

If it isn't, then it won't be the fault of the people who built it, the people who planned it, the brains who thought out every move, took care of every problem, foresaw the contingencies, and then put into operation the country's major traffic plan—the possible prototype of Canadian subways, the Toronto Rapid Transit.

It was back in 1942 that the Toronto Transportation Commission first submitted to the Mayor and Board of Control a proposal for rapid transit for the city. The following year a small staff was set up to study the proposal. In 1944, the first soil borings were made, and later that year, general plans for the Yonge Street Subway were completed, and a report submitted.

This report recommended a subway extending from Union Station east along Front to Yonge Street, thence north under Yonge to College, from College to St. Clair by private right-of-way just east of Yonge, and from St. Clair to Eglinton by private right-of-way west of Yonge, to a terminal at Eglinton—a total distance of 4.56 miles. The report also recommended that most of the down-town section be built at high level by the method known as "cut-and-cover," and the off-street right-of-way section be for the greater proportion in an open cut.

All the world now knows how much this report was followed. The new subway does, in fact, follow very closely the lines laid down by that report.

The Toronto Subway is a classic of its kind. Trained observers were sent to America, to Britain, to Europe, with the specific job of studying subways. On their return their ideas were pooled. The good ones that were applicable were kept, the bad rejected. Thus the Toronto Subway should be a combination of all that is best in subway construction throughout the world, with a few original ideas thrown in for good measure.

Long-Range Planning

Work on the subway began in September, 1949. But long before that long-sighted planners had been working to make the thorny path of Canada's pioneer subway as smooth as possible. For instance:

—Before the first structural contracts were even advertised, the Commission purchased 8,000 tons of structural steel for falsework and shoring. On later contracts further supplies were purchased from European sources before the contracts were released for tender.

—To avoid delay in completion on account of shortages of other items besides steel, the Commission bought a supply of critical materials. These included: brick; cables; insulated wire; conduit; electrical outlets; supervisory equipment; switchboards; telephone equipment; light fixtures; D.C. breakers; pumps; louvers and fans; plumbing fixtures; cast iron pipe and fittings; brass pipe; boilers and heating equipment; fire equipment; shop equipment; tile and other types of pipe; hardware; tile for partitioning.

—Careful plans were prepared for the diversion of traffic away from Yonge Street once the actual construction of the subway was begun, and the construction of the subway itself so planned that diversions need be only of a temporary nature — traffic could return to its normal route with the subway going ahead under the very wheels of the cars and streetcars.

—Thorough study was made of the system of utilities, sewers and pipes underground, and arrangements made in advance to so locate these that there would be no interruption of the services they provided.

Subway Facts at a Glance

Number of men employed	3,300
Number of manhours worked	15,000,000
Amount of earth removed	1,700,000 cu. yds.
Backfill	390,000 cu. yds.
Total cost	$50,500,000
Total length	4.6 miles
First pile driven	September 8, 1949
First train will run	March 30, 1954
Speed	18-20 mph
Number of cars	104
Times of trains	Every two-and-a-half minutes at peak
Materials (approx. figures)	
Structural steel	10,000 tons
Reinforcing steel	14,000 tons
Cement	1,400,000 bags
Lumber	15,000,000 board feet
Rail steel	3,850 tons
Concrete	228,000 cu. yds.

How It Was Built

On Sept. 8, 1949, the first pile was driven on Yonge Street. Roughly the plan of campaign was as follows:

Twelve-inch "H" piles driven on each side of the structure on 6-ft. centres.

Street surface broken and all utilities exposed, and maintained.

Excavation carried to sufficient depth to permit working under temporary deck.

Temporary decking placed in position and traffic restored at street level.

Excavation — carried out in three lifts. Top lift excavation previous to decking — as above. Intermediate lift with 1½ cubic yard shovels. Bottom lift by back hoe.

Construction of tunnel in three stages. Concrete floor poured for several sections. Concrete wall poured several sections behind floor. Concrete roof poured several sections behind walls. (Thus, the construction of the flooring was always ahead of the walls, and the walls ahead of the roof.)

Waterproof membrane applied to walls and roof. Three inches of concrete placed on top of roof to protect waterproofing.

Backfill of sand up to utilities. Water and sewer mains relocated as required. Temporary decking removed, temporary Hydro ducts installed, backfill completed. Street surface, sidewalks and gutter replaced.

The Station Sections

In the station sections, the subway is a rigid frame reinforced concrete structure with the 54-foot width supported in the centre with wide flange steel columns and a longitudinal structural steel beam. This design was selected to give clear vision between side located stations in the ten intermediate stations, and because it would cause less obstruction to passenger movements in the two centre platform terminal stations.

The sections between stations are entirely reinforced concrete with the 32 foot width supported between tracks by a reinforced concrete wall.

This centre wall is worth a little study. At intervals of 15 feet right along the curtain wall are openings 5 feet wide and 7 feet high. These are to serve as refuge bays for workmen and to relieve the air pressure caused by the passing of the trains, thus preventing a blast of air shooting up through the vents to the street each time a train passes, and to minimize the air pressure at stations when a train comes in to the platform.

These openings were achieved with no loss of strength in the curtain wall, and at no additional cost. The concrete saved more than equalled both the cost of forming and the small amount of steel needed to convert the wall section over the opening to a beam.

The open cut sections extend from just north of Bloor to a point halfway between Crescent and Summerhill, from Summerhill to just south of St. Clair, from a point halfway between St. Clair and Davisville to just short of the terminus at Eglinton.

As far as possible these sections are designed and built with slopes of two to one. In some places, because of the requirements of the right of way, the slope is from 1¾ to 1½ to one. Retaining walls were used where slopes steeper than that were necessary.

To carry intersecting roads over the open cuts, bridges of reinforced concrete have been used. The general design of these bridges is a simple fixed frame span, backfilled behind the abutments, with retaining walls to hold the backfill and add to the appearance.

From the point of view of the general traveling public, it is the stations which will come in for the most constant scrutiny. They are very well worth it, both from aesthetic and constructional points of view.

At first glance they fulfill immediately the two most important functions of a public building—cleanliness without the austere sterility of the operating theatre, and pleasurable, eye-catching decor.

Every wall is tiled to the roof with a type of glass tiling which will resist the utmost effort of the vandal who loves to scrawl on public walls. This tiling is a composite material of colored opaque glass bonded to a concrete backing. Where they have been used as surfacing for the structural concrete walls, an air space has been left between the finish and the structure.

Three major and four minor colors have been used in the lay-out of the stations. The basic major colors are yellow, green and grey, all in pastel tones. These colors form the solid background to the station color scheme, with one of the four minor colors, red, black, dark green and dark blue, as band trim. Thus, four stations will be basically yellow, four in grey, and four in green, each with a different color as trim. Eventually, experienced travelers on the subway will be able to identify their particular station by the color scheme.

Station names appeared on the color trim band only, in the original planning, in four inch letters at sixteen foot intervals. However, it was discovered that a standing passenger in the cars was unable to see the name of the station comfortably, so the station identifying signs have been supplemented by ten inch signs at eighty foot intervals lower down the walls. (These supplementary signs had to be sand-blasted into the glass tiling after being cut on kraft paper and pasted on to the walls. The letters thus formed were then lacquered over.)

The construction of the stations is in the form of a parabolic arch. The centre supports were originally designed in reinforced concrete, but to increase the feeling of spaciousness which is a feature of the station design, the reinforced concrete wall was removed and replaced by steel columns supporting a steel beam. This gives a tremendous improvement in over-all vision.

Platforms are 500 feet in length, based on the principle used in U.S. subways. Originally, the idea was that the platform would accommodate ten cars of 50 feet each at peak periods. Unfortunately, the cars to be used on the Toronto Subway are not the standard 50 foot U.S. car, but British ones. Too late it was discovered that the British cars are longer, measuring 57 feet in length. Thus, the 500 foot platform will accommodate only eight of these cars at one time, leaving a "waste" of 44 feet on every platform—nearly 9% of its total length.

The situation is not without its advantages, however, since the extra footage gives the car operator a 44-foot "leeway" when bringing a train into the station—and the operators say quite frankly they would rather have it this way. The British cars have a capacity of 113 sitting and standing passengers, so that the eight-car train will carry as many passengers as the American ten-car train.

The platform itself carries one of the Toronto Subway's "firsts." An intensive investigation was made into the subject of non-slip stone for the edging of the platforms. After a number of tests, it was discovered that carborundum abrasive stone was far and away the best, providing a non-slip surface under any type of underfoot condition. Every platform is provided with carborundum for two and a half tiles in from the edge, and every step of every stair in the entire subway has a single carborundum tile edging.

The remainder of the platform is of terrazzo tiling with carborundum added, and is 12 feet wide without column encroachments, providing ample unobstructed space for passengers.

Platforms are outside the track area at all the stations except the terminals, with one platform for each of northbound and southbound passengers. At the terminals the centre platform has been adopted, with tracks at both sides.

(Continued on page 50)

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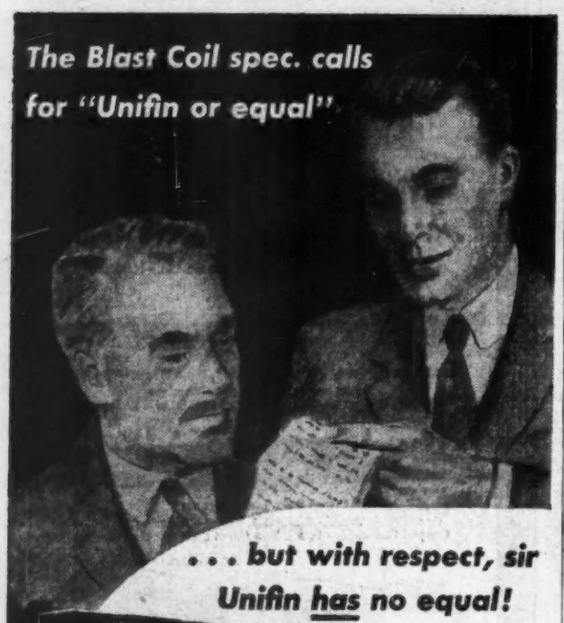

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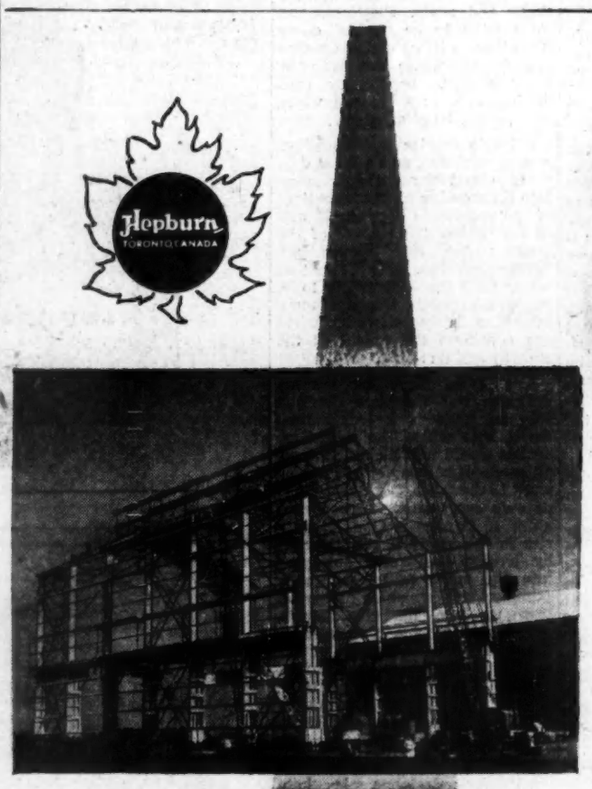

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Toronto's Fifty-Million-Dollar Hole

(Continued from page 49)

Mezzanine floors for the collection of fares and the control of passengers are standard on all the down-town stations with the exception of Dundas and Queen Sts. These mezzanine floors, located between the subway roof and street level, have reinforced concrete walls and roof. Where they differ from the construction of the station below is in the location of the roof supports. These are steel columns so located as to incorporate the cashier's cages or partition walls.

One of the major principles involved in the construction of the subway was to so locate it that transfer to and from surface transport was made as easy as possible, with as little loss of time in getting from lateral routes—Bloor, Queen, etc.—to the subway and vice versa.

This is borne out in the shallow "cut-and-cover" construction method used in the underground portions of the subway, and the open right-of-way construction in the other parts. It has also been in the minds of the planners when it came to the locations of exits and entrances. These are so placed, both in the subway and on the surface, that passengers have the minimum of trouble in connecting with their next means of transport. At Queen Street station, for instance, there are eight means of communication with the outside world. Three of these are through stores whose basements adjoin the subway. In each case, the Commission has built up to the building line of the stores, and the firms themselves have completed the entrance to the subway. At Queen, too, a barber shop and a shoe store were utilized to provide another covered entrance to the subway.

To facilitate the flow of passengers, 13 "motor-stairs" have been provided. These are located as follows:

Union Station, 2; King, 1; Queen, 3; College, 1; Bloor, 2; St. Clair, 2; Eglinton, 2.

Normally these "motor-stairs" will operate for upward traffic, but they can be adjusted to suit the flow of traffic at various periods of the day. They incorporate a handrail of coiled steel spring which is reckoned to outlast the normal rubber type by 20 to 25 times. They are installed on the basis of installation plus five years' service by the Peelle Co., Ltd., of New York.

The ceilings of the control areas are made of perforated cement asbestos paneling, with an inch thick backing of acoustic felt. In other places in the subway proper, the ceilings are simply painted concrete.

The lighting of the subway is done by fluorescent fixtures which are interchangeable with the two-bulb type. They are by Mitchell & Co. The fixtures are in most cases recessed into the ceiling, but at some points they are mounted straight on to the concrete. On the platforms, fluorescent lighting forms a continuous chain for the entire length of the platform edge. Should the Hydro source fail, an emergency battery-powered system will cut in to provide lighting. Thus no matter how serious the breakdown in power supply, there will always be light in the subway.

Power for the operation of the cars comes into the subway through breaker rooms. These are situated below the ground and next to the outside wall of the subway. 13,000 volt AC power is converted into 600 volt DC power at the Commission's substations. This power is then fed to the third rail through the breakers. Switch boxes of heavy gauge steel, designed to give the operator complete protection in the event of a short inside the boxes, are a feature of the power set-up.

The main control room for the subway and yard area is at Davisville.

The third or "live" rail carries another feature never before seen on any subway. It is a hardwood covering which affords almost complete protection of the live surface. The wooden covering is approximately four inches in width, with only a three inch clearance to allow the "shoe" of the car to come into contact with the rail. It can actually be sat on with safety, since the timber overhangs the rail. In order to touch the rail it would be necessary to thrust a foot right underneath the hardwood.

Normal ventilation of the subway is by the piston action of the trains. In order to minimize air pressure building up ahead of the trains, and to enable the passage of the train to draw in air, vent shafts have been located at various points along the line. There are shafts at both ends and at both sides of every station, and at both sides of the structure halfway between stations. The shafts are about 35 feet long and about 5 feet wide, extending upwards to sidewalk gratings. Each vent shaft is equipped with three openings 8 ft. x 8 ft. 6 in. It is through these openings that the trains force air in and out of the subway. The velocity is controlled by louvres on the vent shaft openings, and fans situated midway between stations, with a capacity of 50,000 cu. ft. per minute, take care of any unusual situation.

Moisture Problem

Paintwork presented a problem because of the moisture conditions prevailing in the subway. The paint had to be completely moisture-resistant, and comprehensive tests were carried out over a period of twenty-four months with 104 different types of paint. In order to make the test as fair as possible, paints were tested under a number system rather than by name. Eventually No. 44 was chosen as the best for the purposes of the subway and the decision confirmed by the Research Council. It is a rubber-based, chlorinated paint, and has a spread of 390 sq. ft. to the gallon. A single coat of it was found to be sufficient for the coating of the interior surfaces.

One of the major problems involved in a construction such as the Toronto Subway is the matter of drainage. Water gets into a subway structure in a number of different ways; from condensation on the inside of the tunnel itself; from a certain amount of seepage through the walls; from rain and snow down the stairways and air shafts and vents. Platforms and walls have to be washed down from time to time, and this means introducing water by hose or other means. Emergency conditions, such as a cracked water main, must be allowed for.

All this creates a tremendous sewage problem, and a great deal of care and thought had to go into the solution of it. The bottom of the subway is between 25 and 35 feet below the surface of the ground; the city sewers are higher than that. This means that water from the subway has to be pumped upwards into the main sewers, a fairly tall order when one considers the extent of the subway and its siting.

The main flow of subway drainage was therefore diverted into an undertrack longitudinal drain, into which the subsidiary outlets would run. Since the overall grade of subway slopes downward to the south, the water takes its own course until it reaches a point at College station. Here a rise in the grade is counteracted by having the water emptying into the sump of an automatic pumping station, which forces the flow up into the city sewers, above and outside the subway. There are other automatic pumps at Albert Entrance and Front Street. Each consists of twin, vertical, centrifugal, electrically-driven sewage pumps, with fully automatic controls and separately insulated power line.

Sanitary drainage is kept separate inside the structure by having duplex centrifugal pumps for the staff washrooms in the below ground stations.

The open-cut sections presented a problem of a somewhat different nature. Here the primary danger lay in having water draining down from the steep slopes of the banks and causing heaving and misalignment of the rails in freezing weather. The solution was found in paved open ditches running along the bottom of the open-cut slopes, where the water was collected and run into catch basins. The latter provide settling places for any silt which comes down off the banks, and are connected to a storm drain along the length of the open cut, emptying into the storm sewers of the city system.

Sanitary drainage from the above-ground stations goes directly to the city sewers by gravity.

When the Toronto Subway is in full operation there will be 104 cars running. Each is capable of carrying 113 passengers, sitting and standing. They were built in England by the Gloucester Railway Carriage & Wagon Co., and were shipped across to Canada, uncovered, on ship's deck. The cars weigh 47,000 lb. and cost about $75,000 each. The cars have four axles with a motor on each. When a train is built up of two or more cars, the motors are "ganged" together in one control. This eliminates "pick-up" on the cars as the train starts. All controls in the cars are of the "dead-man" type, which require a strong downward pressure before they will operate. Thus if anything should go wrong with the operator, the train would cease to function.

The entire running of the trains on the subway is controlled by a robot working on the photo-electric principle. A perforated roll of film operated by a clocked motor will stop, start, and control the entire running of the cars on the subway. Human errors will be checked immediately they occur. Speeding, running through a stop signal, failing to obey a "slow-down" signal, delay on the track, are all catered for by the ingenuity of the system. Power will be switched off from the trains and brakes automatically applied whenever an abnormal situation occurs. Manual control to handle situations not allowed for on the film is also part of the system.

The Construction Team

Here are contracts awarded for the Toronto subway:

Sections S-1 and S-2—Subway structure from terminal on Front Street to a point where subway branches off Yonge Street north of College—awarded to Pitts, Johnson, Drake & Perini, of Toronto.

Section S-2-A—Extension of first contract from College to Alexander Street—awarded to Pitts, Johnson, Drake & Perini.

Sections S-3, S-4 and S-5—From Alexander Street north to a portal near the old location of Muir Memorial Gardens, opposite Mount Pleasant Cemetery—awarded to Rayner Construction Co., Toronto.

Section S-5-A—From the portal at Muir Memorial Gardens to Imperial Street, including the Davisville yard and buildings south of Chaplin Crescent—awarded to Mannix-McNamara Co., Toronto.

Section S-6—From Imperial Street north to Eglinton Avenue, including Eglinton Terminal—awarded to Pitts, Johnson, Drake & Perini.

Sections SC-1 and SC-2—Architectural contract for station finish work for all stations except Eglinton. Section SC-1—underground stations; Sections SC-2—above-ground stations—awarded to Foundation Co. of Canada Ltd., Montreal.

Signals—Furnish and install a modern signal system—awarded to Radio Engineering Products Ltd., Canadian representatives of Siemens & General Electric, Great Britain.

Escalators—Furnish and install 13 moving stairs—awarded to Peelle Corp., Brooklyn, N.Y.

Telephones—Part of Commission's own system, which is being modernized by the installation of a 400 line dial system—awarded to British General Electric Co. of Canada, Toronto.

Traction Power, A.C. Power and Fire Alarm—To install power and fire alarm equipment—awarded to Canadian Comstock Co., Toronto.

Paving—For the temporary paving of Yonge Street—awarded to Godson Contracting Co. For paving streets crossing subway—awarded to Geo. W. Porter Construction Co. (Toronto).

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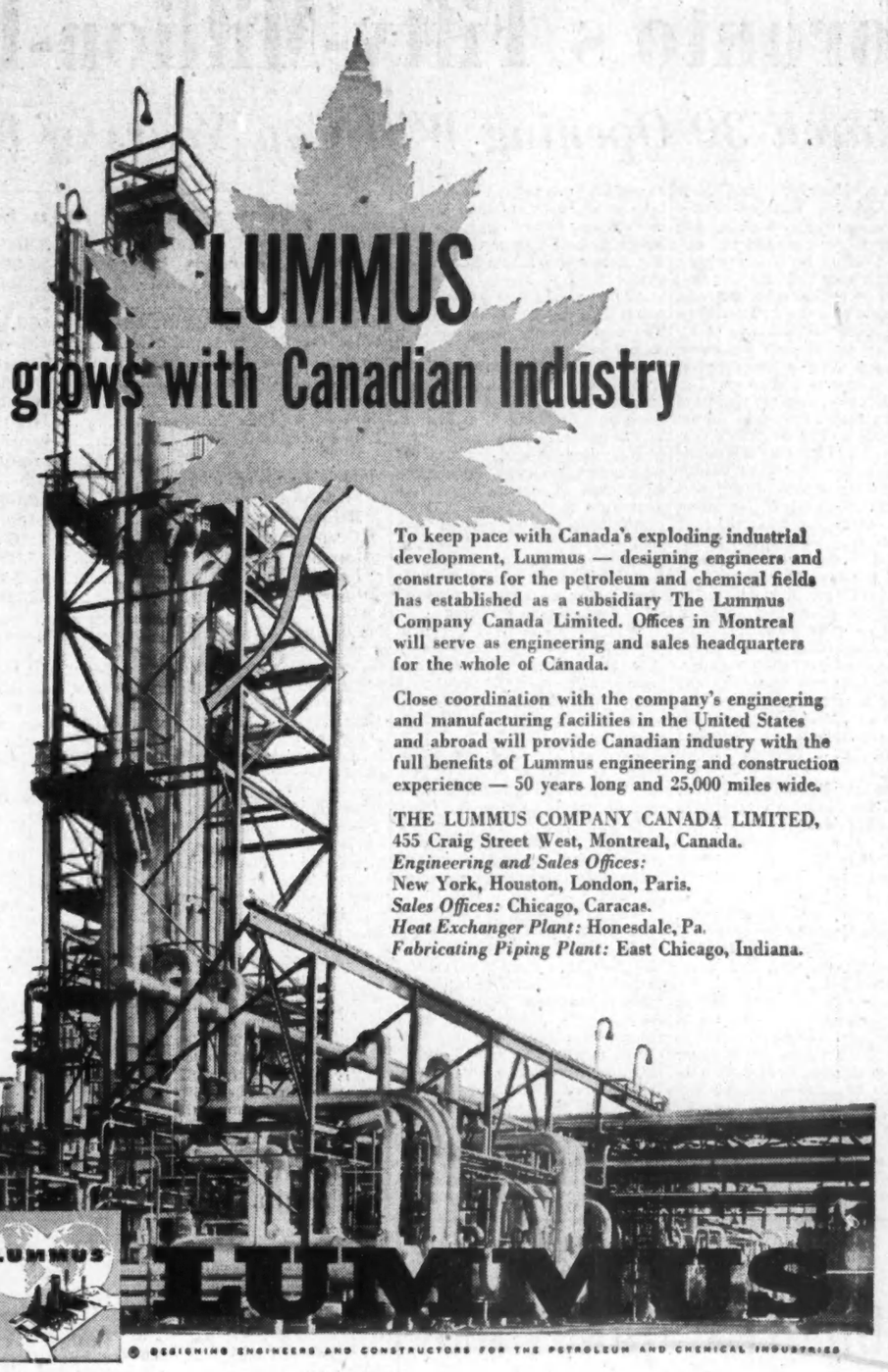

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To keep pace with Canada's exploding industrial development, Lummus — designing engineers and constructors for the petroleum and chemical fields has established as a subsidiary The Lummus Company Canada Limited. Offices in Montreal will serve as engineering and sales headquarters for the whole of Canada.

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Heat Exchanger Plant: Honesdale, Pa.
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LUMMUS

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Consulting Engineers—Shepherd & Powell—Toronto
General Contractor—Jackson-Lewis Co. Ltd.—Toronto

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. . . the evidence is strongly in favour of

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John Inglis (English Electric) Scarborough Works
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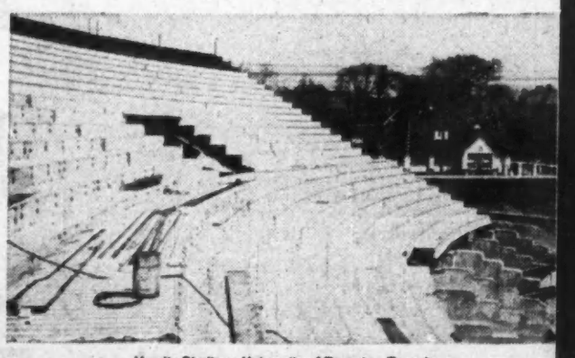
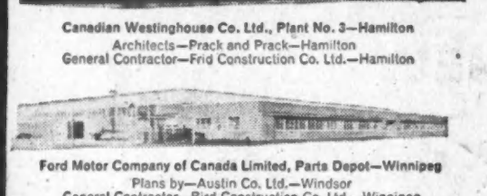
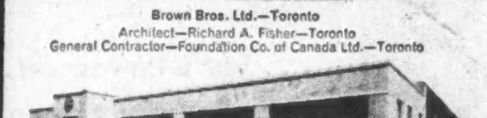
General Contractor—Angus Robertson Ltd.—Toronto



Varsity Stadium, University of Toronto—Toronto
Consulting Engineers—Proctor, Redfern & Laughlin—Toronto
General Contractor—George Hardy Limited—Toronto



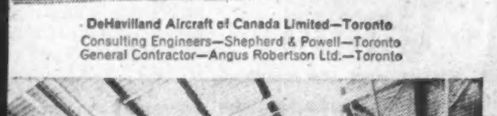
Canadian Westinghouse Co. Ltd., Plant No. 3—Hamilton
Architects—Prack and Prack—Hamilton
General Contractor—Frid Construction Co. Ltd.—Hamilton



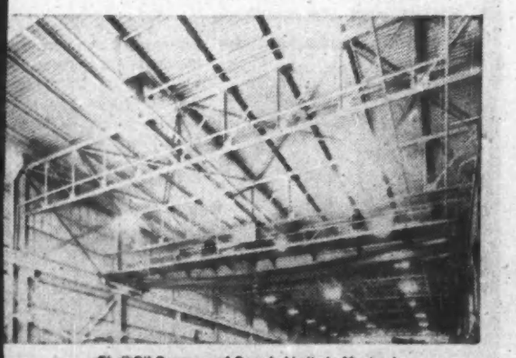
Ford Motor Company of Canada Limited, Parts Depot—Winnipeg
Plans by—Austin Co. Ltd.—Windsor
General Contractor—Bird Construction Co. Ltd.—Winnipeg

Brown Bros. Ltd.—Toronto
Architect—Richard A. Fisher—Toronto
General Contractor—Foundation Co. of Canada Ltd.—Toronto

Canadian Pneumatic Tool Co. Limited—Montreal
Architect—Robert E. Bostrom—Montreal
General Contractor—J. L. E. Price & Co. Ltd.—Montreal



DeHavilland Aircraft of Canada Limited—Toronto
Consulting Engineers—Shepherd & Powell—Toronto
General Contractor—Angus Robertson Ltd.—Toronto



Shell Oil Company of Canada Limited—Montreal
Architects—Barott, Marshall, Montgomery & Merrett—Montreal
General Contractor—J. S. Hewson Limited—Montreal

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Record of Construction Securities

(Continued from page 45)

Cooksville Co.

Cooksville Co., Toronto, manufactures face, pressed, paving and common brick, quarry hollow building tile, rubble and flagstone, concrete blocks, mortar plasticizers, an aggregate known as Haydite which is used in place of gravel in mixing concrete, and Haydite Roof Deck.

Control of the company was acquired late in 1953 by Dominion Tar & Chemical Co, through an offer to purchase the Class A shares at $20 each and the Class B shares in $15. There are 89,000 shares of each class outstanding. Originally set to expire on Oct. 22, the offer has subsequently been extended by Dominion Tar & Chemical until Feb. 22.

All of the 922,542 outstanding 1% noncumulative redeemable preferred shares, par $1, which had been issued in 1950 and 1951, were redeemed Dec. 1, 1953.

Plants are at Cooksville (on a 200-acre site) and Scarborough (on a 16-acre site). A sand and lime brick plant is operated at Scarborough, Ont.

A wholly owned subsidiary, Aerocrete Construction Co., manufactures lightweight roof deck and flooring at plants on leased property at Scarborough, Ont., and Montreal East.

An associated company, Laprairie Co., owns over 1,000 acres of shale and clay deposits and operates four brick and tile plants—two at Delson and two at Laprairie, Que.

Net profit of $777,309 for 1952 was 20.4% lower than 1951 net of $976,874. Earnings on Class A stock were $8.63 in 1952 ($10.85 in 1951) per share before participation, and $4.62 ($5.72) after participation. Class B stock earned $4.02 ($5.12) per share. Dividends on the Class A stock are paid regularly each quarter at the rate of 60c per share per annum.

Working capital at the end of 1952 stood at $2,105,115 ($1,586,804). Earned surplus was $1,890,233 ($1,181,629).

Foundation Co.

Foundation Co. of Canada Ltd. operates in three main divisions: Building, Engineering and Marine. The company is engaged in construction of public and private buildings of all kinds; industrial plants; power houses; hydro-electric developments; tunnels; mines; bridge; piers; harbor and river terminals; and marine works generally, as well as marine salvage work in the Atlantic and the Gulf of St. Lawrence.

Late last year the company split its building and engineering divisions into separate subsidiaries, with engineering works now being handled by a newly formed Foundation of Canada Engineering Corporation Ltd., Toronto, while the construction and marine department remained direct function of the parent company.

The move was made, it is understood, to broaden scope of the company's engineering activities, as distinct from its general contracting and marine services. The new company is specializing in industrial and heavy engineering designs, similar to that previously carried out by Foundation's engineering department. The new subsidiary, however, is also doing engineering work not necessarily followed up by its parent company construction.

The company has equipment, storage yards, warehousing facilities, and repair shops at Montreal, at Dorval, Que., and at Toronto and Halifax. Three wharves with extensive warhousing and storage facilities for its marine business are also owned at Halifax.

During the year, the business of Maritime Towing & Salvage Ltd. and Foundation Maritime (Atlantic) Ltd. — a subsidiary — were consolidated with Foundation Maritime Ltd. charters of both the former subsidiaries having been surrendered.

Company's building and engineering divisions are fully equipped for handling all types of construction work within the scope of the company's business. Marine equipment include large ocean going salvage tugs, wrecking vessels, harbor tugs, derrick boats, water boats, barges of various types and other salvage vessels.

While the annual report does not usually appear until April, company's 1952 operations resulted in a consolidated net profit of $399,911 (excluding profit on sale of fixed assets), as against $533,432 for 1951. Earnings per share, based on the number of shares outstanding at December 31, 1952, amounted to 96c as compared with $1.30 in 1951.

Outstanding capitalization at Dec. 31, 1952, consisted of $1.5 million 3½% serial debentures due Feb. 1, 1954-59 and 418,375 npv common shares.

Dominion Tar

Dominion Tar & Chemical, through a wholly-owned subsidiary, Alexander Murray Co. markets a complete range of building materials including Donnacona insulating, decorative and hardboard products; Donnacousti sound-absorbing tile; Murray insulated and roll brick sidings; asphalt shingles; smooth and slate roofings; dry and saturated felt sheathings; Murray registered built-up pitch and gravel roofs; Murray Modernite; protective and waterproof paints; coatings and compounds; Fibreen building paper; and many other products.

Company also owns Canada Roof Products Ltd., which markets building materials including asphalt shingles, smooth and slate surface roofings, building papers and sheathings, bonded roofs and insulated bricks sidings, floor tiles, roofing coatings and compounds, protective waterproofing paints, shingle stains and paints, cold tar creosotes and pitches, all marketed under the trade name "Ace-Tex."

In 1953, company heavily extended its participation in the construction material field by acquiring control of Cooksville Co. and Brantford Roofing Co.

Cooksville Co. was brought through an offer to shareholders which set the price of the purchase at about $3,115,000. This company manufacturers press, paving and common brick, quarry hollow building tile, concrete blocks and a wide variety of other building materials.

Through another offer to shareholders, which placed the purchase price at $1,610,000 — the company acquired Brantford Roofing Ltd., Brantford, Ont. — a 47-year old manufacturer of a full line of asphalt slate shingles, rolled roofings, insulating sidings, carpet felts and waterproofing materials.

With the acquisition of Cooksville Co. came also its Quebec affiliates the Laprairie Brick Co. which operates four factories in Quebec, and another subsidiary, the Aerocrepe Co., Montreal East.

Consolidated net profits of the company for the year ended Dec. 31, 1952, totaled $1,605,318 ($2,525,018). Earnings per share in 1952 were $5.35 ($8.42) on the preferred $2.18 ($3.71) on the common. Working capital at Dec. 31, 1952, amounted to $10,388,363 ($10,435,600).

Outstanding capitalization at June 2, 1953, consisted of $1,250,000 3½% series A mortgage bonds due August 1, 1953-57; $4,150,000 — 3½% series "B" Sinking Fund First Mortgage bonds due Aug. 1, 1970; $10 million 5% 1952 series Sinking Fund debentures due April 1, 1957; $2.5 million 5% 1953 Serial debentures due 1954-63; $5 million Sinking Fund Debentures due 1969; 300,000 $1 preferred cumulative redeemable par value $23.50 preferred shares; and 2,800,000 common shares of no par value.

Gypsum, Lime

Gypsum, Lime & Alabastine, Canada, Ltd., of Paris, Ont., and its subsidiary, operate plants across Canada, manufacturing a wide range of gypsum plasters, insulating, structural and acoustic materials, and lime wallboard, water paint and stucco products.

Company's products are used extensively in construction and building work of all kinds, ranging from private residences, farm buildings, etc., to larger operations.

Five gypsum plants are operated, at Montreal East; Caledonia, Ont., Winnipeg, Calgary and New Westminster, B.C. Deposits supplying these mills are at Baddeck, N.S., Caledonia, Gypsumville, Man., and Falkland, B.C.

Other properties are rockwool plants at Caledonia and Calgary, a stucco plant at Toronto and an alabastine plant at Paris, Ont. A new hydrating plant was completed at Beachville, Ont., in 1952, and a new warehouse at Caledonia in 1953.

A subsidiary, Standard Lime Co., operates lime and crushed stone plants at Joliette, Que., sand lime brick and ready mixed mortar plant in Montreal, and sand pit at Ste. Emelie.

Net capital expenditures in year ended Nov. 30, 1952 (latest figures released by company), amounted to $1,123,740, compared with $604,307 in previous fiscal year.

Net profit for the year was $1,132,878 or $2.57 per common share, 29.8% less than previous fiscal year's net of $1,613,235 or $3.67 per share. Dividends of 50c per share per quarter have been paid regularly since 1952.

Capitalization outstanding at latest report included $300,000 2¾% serial bonds, due Nov. 1, 1954-56; $1 million 20-year 3½% bonds due Nov. 1, 1966; and 440,043 n.p.v. common shares. Working capital stood at $4,970,740 on Nov. 30, 1952, up slightly from $4,952,633 a year earlier.

Interprov. Brick

Interprovincial Brick Co., Toronto, manufactures brick in its plants at Milton and Cheltenham, Ont. Company is controlled by Cooksville Co.

Net profit of $127,141 for 1952 was 49.5% higher than 1951 net of $85,042. Earnings were equivalent to $339.95 ($227.39 in 1951) per Class A share, $122.56 ($81) per Class B share and $11.60 ($7.39) per common share. Dividends of $12 in 1953 and $6 in 1952 were paid on preferred shares, leaving arrears of $188 per share at Oct. 1, 1953.

Capitalization outstanding at Dec. 31, 1952, consisted of 374 Class A 8% cumulative redeemable preferred shares, par $100; 1,013 Class B 8% cumulative redeemable preferred shares, par $100; and 10,000 n.p.v. common shares. Earned surplus was $204,099 ($116,151 a year earlier) and working capital $356,376 ($345,769).

La Prairie Co.

Laprairie Co. produces wire cut and pressed brick of various colors and textures, plus a complete line of structural building tile, including chimney blocks. Trade marks contain both "Plastic" and "Enduro."

Four brick and tile plants are operated: two at Delson, Que., and two at Laprairie, Que. The company owns over 1,000 acres of shale and clay deposits and owns and operates its own railway for transporting raw material from the shale pits to the manufacturing plant. It also owns and rents to employees 85 cottages.

Two recent deals have affected the company. Dominion Tar & Chemical Co. last September offered to buy all the outstanding Class "A" and Class "B" shares of Cooksville Co. As a result, Dominion Tar acquired control of Cooksville and has subsequently extended its offer from time to time in order to acquire as many shares as possible. The offer will now expire Feb. 22.

Cooksville Co., in turn, had already held a controlling interest in Laprairie Co., through ownership of 26,875 of the latter's 50,000 outstanding common shares. In January, 1954, it offered to purchase the balance at $25 each.

Laprairie Co., accordingly, is now controlled by Dominion Tar.

Operating profit for 1952 at $752,471 was up slightly ($742,328 in 1951). Net profit rose to $297,990 ($291,312).

All the outstanding 6% cumulative redeemable preferred shares of Laprairie Co. were redeemable on Nov. 14, 1953. As a result, outstanding capitalization now consists entirely of 50,000 n.p.v. common shares.

Monarch Mort.

Monarch Mortgage & Investments Ltd. owns and operates 12 apartment buildings having a total of 523 suites, and holds mortgages on nine new properties. A wholly owned subsidiary operating in the Toronto area, undertakes land development, and is engaged in construction of lower-priced houses, as well as apartment buildings and shopping centres.

Announcement was made last month that control of the company had been acquired by Taylor-Woodrow (Canada) Ltd., subsidiary of Taylor-Woodrow Ltd. of London, England, through purchase of 53% of outstanding shares.

A full rate of occupancy was continued during 1952, according to latest annual report. The subsidiary, Monarch Construction & Realty Ltd., completed a large modern shopping centre and a 99-unit garden type apartment development on Eglinton Ave. E., Toronto.

Net profit of $148,159 or $3.51 per share for 1952 was 8.5% higher than 1951 net of $136,493 or $3.24 per share. Dividends of $2 per share per year are being paid semiannually.

Capitalization outstanding at latest report consisted of 42,181 n.p.v. common shares. Authorized capital is 91,806 shares. Working capital at Dec. 31, 1952, amounted to $147,369 ($93,429 a year earlier).

(Continued on page 52)

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Illustrated above is the difference a Plexiglas luminous ceiling can make in the lighting and appearance of museums —or banks, offices, schools, drafting rooms, and laboratories.

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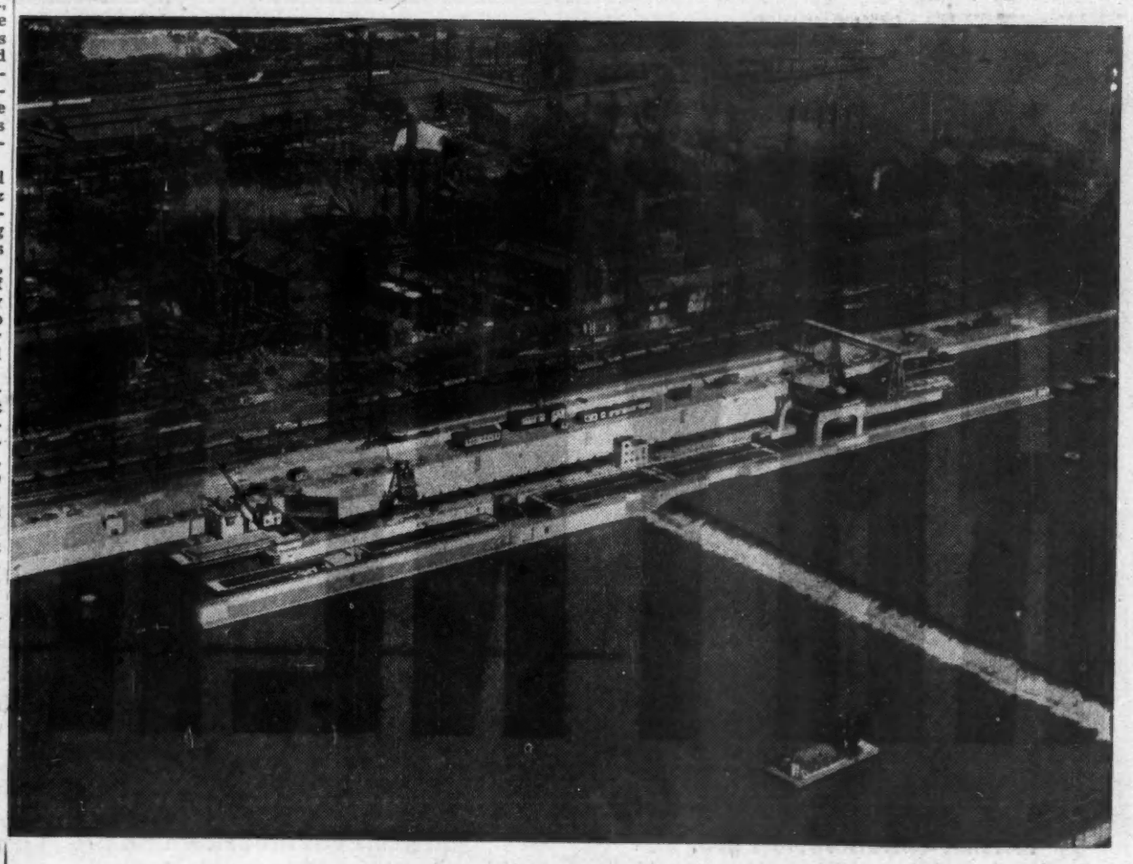

AN ENGINEERING HERITAGE

Dravo of Canada, Limited, inherits from its American affiliate, Dravo Corporation, an engineering tradition extending over more than 60 years and covering a wide range of construction activities, industrial products and services. Typical of the many waterways projects performed by Dravo was the recently completed reconstruction of Locks No. 2 in Pittsburgh to improve navigation on the Monongahela River.

The original locks, constructed by Dravo in 1905, were removed and replaced by two new locks with three times the capacity of the old ones. River traffic was maintained throughout the entire four and one half years of the project.

Dravo of Canada, Limited, specializes in waterways and other heavy construction work — in bridge substructures, docks, wharves and harbor headwalls, water intakes and pumphouses, shafts, slopes and tunnels, locks and dams, deep or difficult foundations.

For a number of years Canadian industry has utilized Dravo equipment and engineering services in a variety of applications. Dravo *Counterflo* Space Heaters are manufactured and sold by Marine Industries, Limited.

Dravo of Canada, Limited, also inherits a tradition of service that makes customer satisfaction an essential factor in all its products and services.

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Head Office: Toronto, Canada • Offices from Newfoundland to British Columbia

Progress Reports on the Construction Companies

(Continued from page 51)

Martineau

Martineau Cut Stone Co., incorporated in 1945, acquired the assets of Martineau Fils, Ltee., which had operated stone quarries in the City of Montreal since 1932. The company is a cut stone contractor, specializing in cut stone and granite. Its quarry is located at Pont Viau, Que. Plant is at Rosemount, Montreal.

A subsidiary, Deschambeault Quarry Corp., at St. Marc de Carrieres, Que., is a stone contractor and manufacturer of "Calco" products. Its quarries are located at St. Marc and St. Girard.

Balance sheet as at October 31, 1952, latest available, shows total assets of $949,665, including current assets of $263,700. Investments and advancements to subsidiary were shown at $449,780 and fixed assets totaled $180,065 after depreciation of $207,302. Current liabilities amounted to $202,932 while earned surplus totaled $141,176.

Milton Brick

Milton Brick Co., Toronto, manufactures first quality face brick from rock shale by the dry press and wire-cut methods. Annual capacity is 25.5 million bricks.

A third tunnel kiln was completed in June, 1953. Other capital projects are new loading docks and a new water reservoir. Cost of the expansion program was estimated at $200,000.

At its plant near Milton, Ont., company owns 200 acres of red and buff deposits of Medina shale.

Net profit of $120,415 or 22c a share in 1952 was 3.4% higher than 1951 net of $116,464 or 23c a share. Dividends are being paid on a semiannual basis at the rate of 15c per share per annum.

Nat. Sewer Pipe

National Sewer Pipe Ltd. manufactures and distributes vitrified clay products, including sewer pipe, wall coping, flue lining, electrical and telephone conduits, segment sewer blocks, radial chimney blocks, field drain tile, vitrified block for acid towers, etc. About 95% of its production is sold in Ontario to municipalities, contractors and building supply dealers, and the balance marketed throughout Canada.

A wholly owned subsidiary, National Concrete Products Ltd., manufactures concrete pipe, which is sold by the parent company. Its accounts are not consolidated.

Construction of a new factory at Clarkson, Ont., was completed recently. Installation of machinery is now under way, and it is planned to have one unit of the two-unit plant in partial production by May. When the second unit reaches full production, possibly in September or October, capacity of the plant will be equal to present production of both Hamilton and Swansea plants.

Net profit for year ended Oct. 31, 1952 (latest figures released by company) was $125,578, 1.5% higher than 1951 net of $123,722. Volume of sales and production varied slightly in the two years, said President Ryland H. New.

National Sewer Pipe Ltd. was formed in 1953 to acquire the assets of National Sewer Pipe Co. For each Class A share of the old company, stockholders received $35 principal amount of the 5½% first mortgage bonds of the new company; $25 principal amount of the 6½% debentures of the new company; and $2.15 cash. The obligations of the new company bear interest from Jan. 2, 1953, and mature Jan. 2, 1973.

The new company also purchased from Ryland H. New a 55% interest, represented by 5,572 shares, in Canada Vitrified Products Ltd., which carries on a business at St. Thomas, Ont., similar to that of National Sewer Pipe.

Northern Builders

Northern Builders Sales Ltd., Fort William, Ont., incorporated in 1950, is a wholesale and retail distributor of builders' supplies and lumber.

Outstanding capitalization at latest report consisted of 5,000 5% noncumulative preferred shares, par $10, and 2,500 common shares. Shares were sold in units of two preferred and one common at $30 per unit.

Ritchie Cut Stone

Ritchie Cut Stone Co., Toronto, a controlled subsidiary of Canada Crushed & Cut Stone Ltd., operates a stone cutting mill at its plant in New Toronto.

Operating profit in 1952 was $54,067, and net profit $429. Depreciation of $15,022 was provided at the maximum amount allowable for income tax purposes. Income from investments was $7,875. In the previous fiscal period, the nine months ended Dec. 31, 1951, operating profit totaled $106,195 and net profit $32,310.

At Dec. 31, 1952, capitalization outstanding consisted of 7,422 non-cumulative participating npv preferred shares, and 10,985 npv common shares. Company purchased and canceled 2,699 preferred shares during 1952.

Schell Indust.

Schell Industries Ltd., Woodstock, Ont., manufactures a complete line of concrete masonry products, including building blocks, concrete bricks and ready-mix concrete, precast sills and lintels.

A wholly owned subsidiary, H. M. Clubine & Co., which formerly made toys, was liquidated in the fiscal year ended Oct. 31, 1953. A loss was incurred in its liquidation and clearance of toy inventories, said President R. G. Thomson. Portions of the plant formerly used by that division have been leased and are now producing revenue.

Sales in the latest fiscal year showed an increase of 18.8% over previous year, said Mr. Thomson. Sales of wood products, toys and games were confined to clearance of inventories on hand at the beginning of the year.

Net profit for year ended Oct. 31, 1953, was $20,567, equivalent to $66.56 per preferred share and 30c per common share. The previous year, a net loss was recorded, amounting to $67,700 or $121.98 per preferred share and $1.17 per common share.

Dividends of $5 per year are being paid regularly on preferred shares. No dividends were paid on common stock. "We are hopeful that at the end of next year our working capital will permit the directors to consider some dividend action," Mr. Thomson said recently.

Sidney Roof.

Sidney Roofing & Paper Co., Victoria, B.C., manufactures asphalt roofing and allied products, including Duroid asphalt shingles, Sidney insulated sidings, plain and mineral-surfaced roll roofing, Permax building papers, plain and saturated building papers, built-up roofing materials, asphalt preservative coatings and cements, paperboards and cartons. Plants are located at Victoria, B.C., and Lloydminster, Sask.

A wholly owned subsidiary National Paper Box Ltd., manufactures folding and rigid paper boxes at Vancouver, B.C.

Sidney Roofing also has distribution rights in British Columbia, Alberta and Saskatchewan for a number of construction materials, including Rock Wool and Alfol insulations, Masonite, Ten/Test and plywood products, Barclay Primtile wallboard, and similar lines.

Net profit for 1952 (latest available figures) was $200,420, 14.8% lower than 1951 net of $235,162. Earnings were equivalent to $4.01 per Class A share ($4.70 in 1951) and $1.55 ($1.90) per Class B share. Quarterly dividends, at the rate of 90c a year, are being paid regularly on Class A shares.

First full-year operation of the Lloydminster, Sask., plant made possible expanded trading in the prairie provinces, said General Manager J. A. Craig.

Capital expenditures in 1952 totaled $234,542, including $156,000 for replacement of equipment and major repairs to buildings at the Victoria plant.

Standard Clay

Standard Clay Products Ltd., manufactures salt glazed vitrified and fire clay products, including sewer pipe, culvert pipe, concrete pipe, wall coping, flue linings, etc.

It owns five plants: three at St. Johns, Que., and two at New Glasgow, N.S. Total capacity is 30,000 tons annually. A new kiln was put into operation at St. Johns in 1945 to balance plant and kiln capacities. In 1951, a new concrete pipe unit was added at St. Johns.

Annual report on 1953 operations has not yet been issued. In 1952, operating profit was down sharply at $76,345 ($144,023 in 1951), while net profit dropped to $9,733 ($35,186). Tonnage sales were down approximately 8% from the previous year.

In 1953, with a view to furthering the sale of concrete sewer and culvert pipes, a wholly owned subsidiary known as Standard Concrete Products was incorporated.

Standard Paving

Standard Paving & Materials Ltd., through its subsidiary companies, operates as street and highway paving contractors, and supplies sand and gravel for all types of building and construction work throughout Eastern Canada. Subsidiaries also manufacture concrete sewer pipe and sell steel buildings.

A new company, National Slag Ltd., owned one third by Standard Paving & Materials, was incorporated in mid-1953. It will process blast furnace slag at a plant to be built in Hamilton.

A majority interest in Concrete Pipe Ltd. was acquired by Standard Paving & Materials in November, 1952, for $945,000. The new subsidiary manufactures concrete sewer pipe for the Ontario market.

Other subsidiaries are Consolidated Sand & Gravel Co., Toronto; Standard Paving Ltd., Ottawa; Kilmer & Barber Ltd., Toronto (inactive); National Sand & Material Co., Toronto, which owns and operates a large self-loading sand and gravel boat; Standard Paving (Maritime) Ltd., Halifax; and All Steel Building Ltd.

Volume of business in the year ended March 31, 1953, was highest in history. Supply division's operations were at an all-time peak, while construction division's were greatest with one exception.

Expenditures on plant and equipment totaled $619,089, of which $244,833 was spent to complete a new aggregate plant at Paris, Ont. This plant, with annual capacity of 800,000 tons, went into operation in June, 1952.

Consolidated net profit of $771,181 for the year ended March 31, 1953, was 34.5% higher than previous fiscal year's net of $573,057.

Earnings per share in 1952-53 were $19.45 on preferred ($14.67 the previous year) before taking the participation feature into account, and $2.23 ($2.41) on com.

Common dividends are being paid at the rate of $1 per share per annum, established with a 50c payment on April 1, 1949. A special dividend of 50c per common share was paid Jan. 15, 1954.

Dividend rate on the preferred stock is $1.25 per share per annum plus participating dividend. Payment of 75c a share was made Oct. 1, 1953, and $1.12½ a share on April 1, 1953.

Steetley of Canada

Steetley of Canada Ltd., Hamilton, was formed in 1952 as a subsidiary of an English company, to produce dead burned dolomite, a refractory material used by the steel industry in the daily lining and repair of open-hearth and electric furnaces.

The company purchased 125,000 of the 190,000 oustanding common shares of Canada Crushed & Cut Stone Ltd., and all the outstanding shares of Dolomite Refractories Ltd.

Completion of a new rotary kiln plant in the township of West Flamboro, Ont., which is now under construction, is expected late next month. The kiln should be ready for operation shortly thereafter, said President N. M. Peech. Cost is estimated at $2 millions.

In company's initial operating period, from Sept. 19 to Dec. 31, 1952, net loss was $6,508. No subsequent figures have been published. Based on production of proposed 50,000 tons of dead burned dolomite a year, annual profits from operation are estimated at $460,000 before depreciation, interest, income taxes and amortization of bond discounts and expenses.

Estimated annual consolidated net profit of the company and Canada Crushed & Cut Stone Ltd. and its subsidiaries are $168,200 after preferred dividends of Canada Crushed Stone and minority interests.

Balance sheet at Dec. 31, 1952, showed bank loan of $650,000; funded debt of $1.5 millions 5¼% first mortgage sinking fund bonds Series A due Dec. 1, 1962, and $1 million 5½% general mortgage sinking fund bonds due June 1, 1965; 1,500 preferred shares, par $100, issued and 8,500 preferred shares subscribed but not yet issued; and 250,000 n.p.v. common shares.

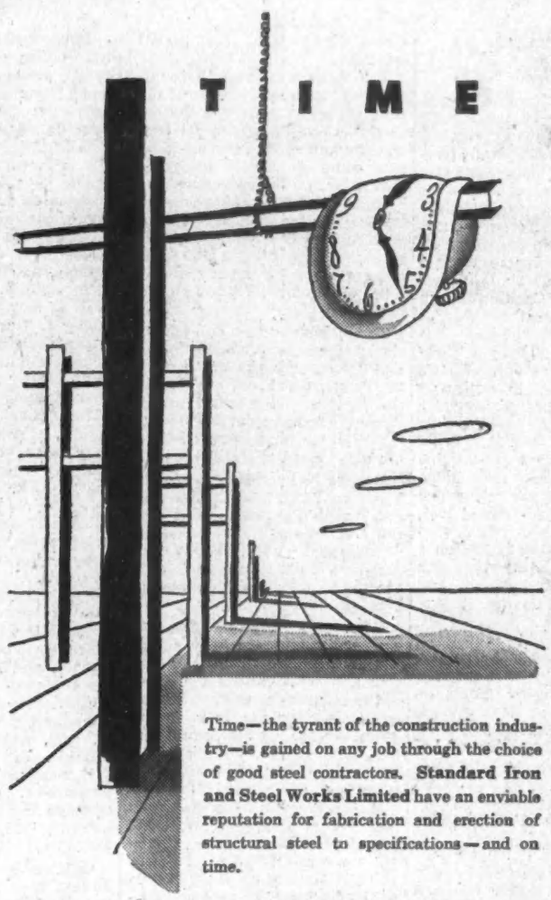
Canada Flooring

Canada Flooring Co. operates a flooring business, with a plant in the Town of Mount Royal, Que. It specializes in hardwood flooring of all kinds and does custom kiln drying, with a capacity of three million feet monthly. The company is the largest manufacturer of floor wood in Canada.

Four years ago, it acquired a wholly owned subsidiary, Rockland Lumber Co., which operates a wholesale and retail business in hardwood lumber.

Canada Flooring launched a plant modernization program a few years back, and expanded its facilities considerably. This was pretty well completed by 1952.

Annual report for the fiscal year ended Oct. 31, 1953, was expected to be issued sometime this week. In 1951-52, the company showed a net profit of $0,000,000, compared with $134,943 in 1950-51.



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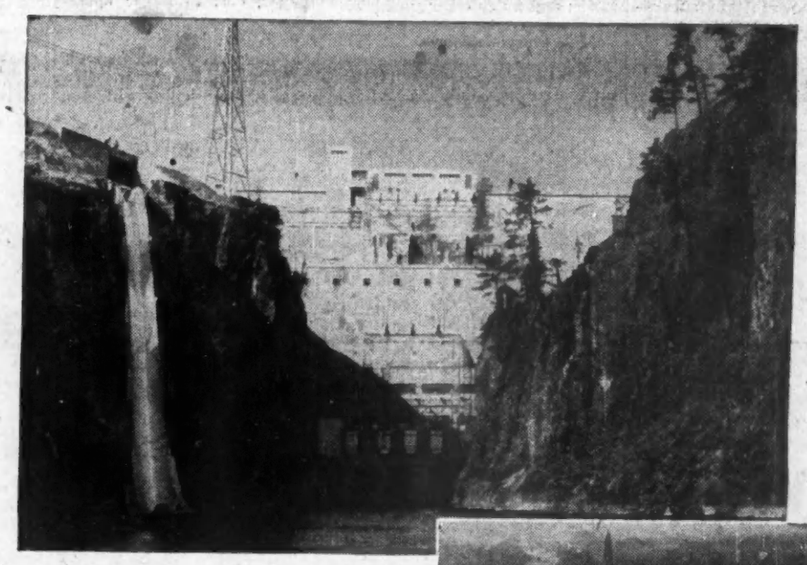

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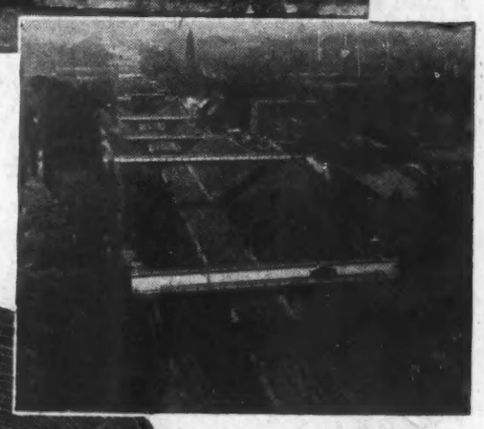

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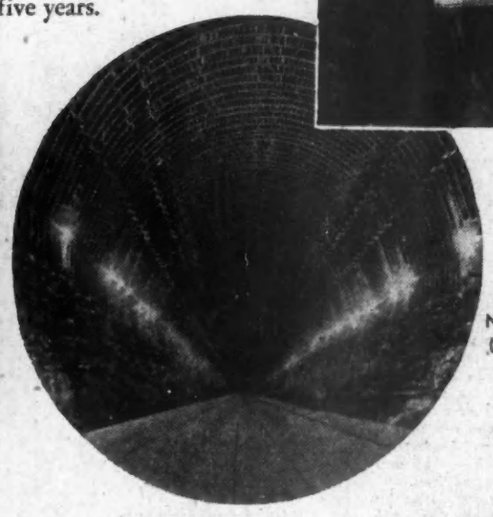

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The Financial Post

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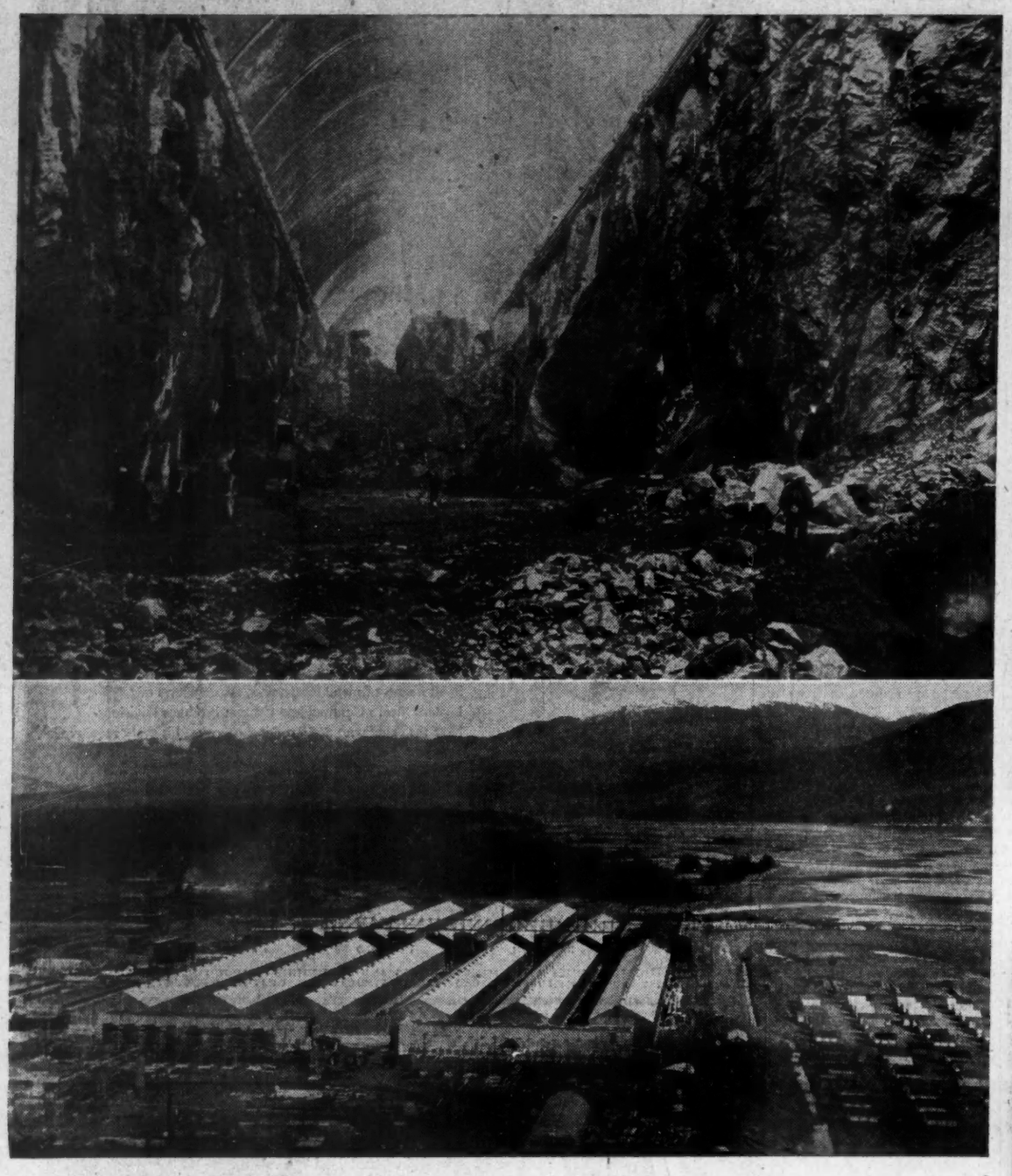
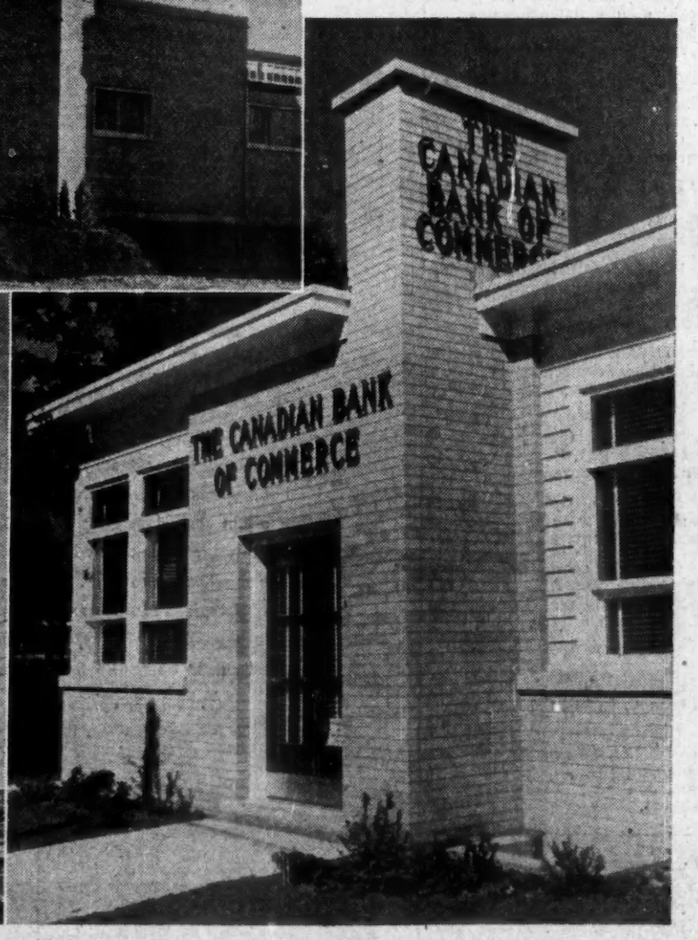
Highlights of The Construction Scene Across Canada Today



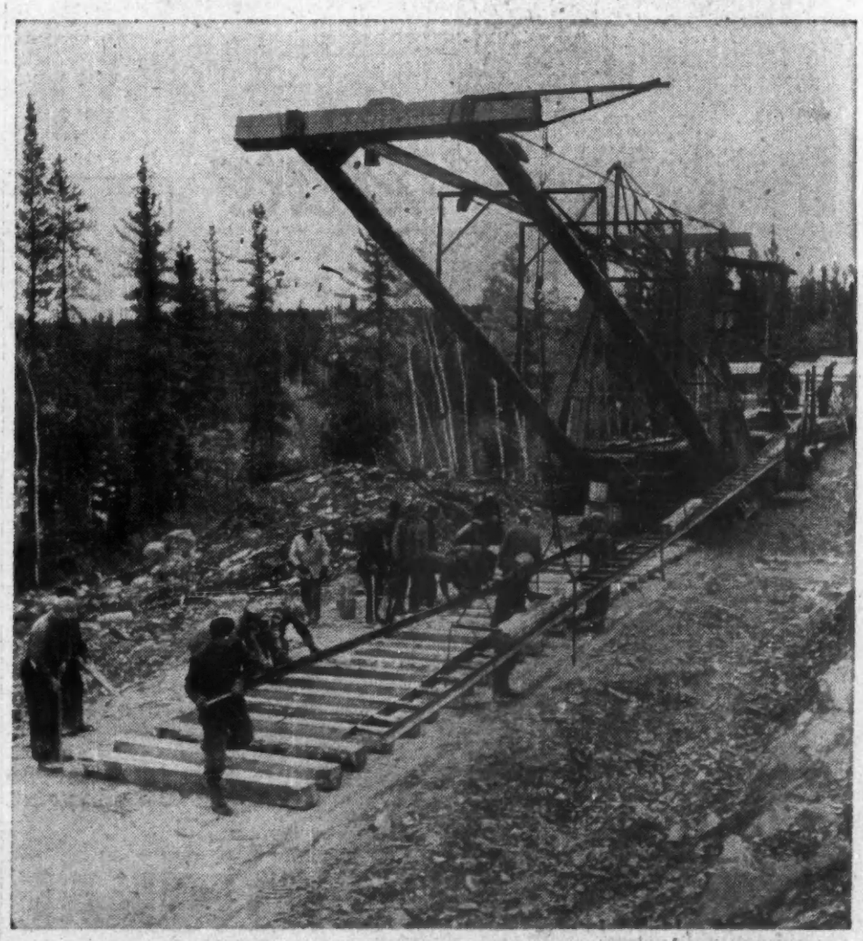
THE BIGGEST JOB on the books: the St. Lawrence Seaway and power project. About $1 billion has gone into new power construction across the country over the last three years. Ontario Hydro's scale model of the St. Lawrence project pictured here.

ONE OF THE BIGGEST construction jobs in recent years—the $550 millions Alcan Kitimat project in B. C.—meant tearing the heart out of a mountain (top) to bring power 50 miles to the smelter (below) destined to become the world's largest. First production this summer.

GROWING OIL WEALTH in the West means a big program of refinery and petrochemical construction across the country. A total of $300 millions is committed for refineries, $300 millions for petrochemicals. Imperial Oil is building one of our most modern refineries on the Halifax waterfront (here). It will cost $25-$30 millions.



FACTORY AND COMMERCIAL construction estimated for last year will account for almost $700 millions. Some new trends are evident. Dowty Equipment plant at top is typical of one-floor factories going up in new industrial areas in suburban and rural areas. Confederation Life (lower left) has a 10-story head office going up in the uptown area of Toronto to become part of an Insurance Row. Canadian Bank of Commerce new branch at Maple, Ont., is designed to harmonize with rural surroundings.



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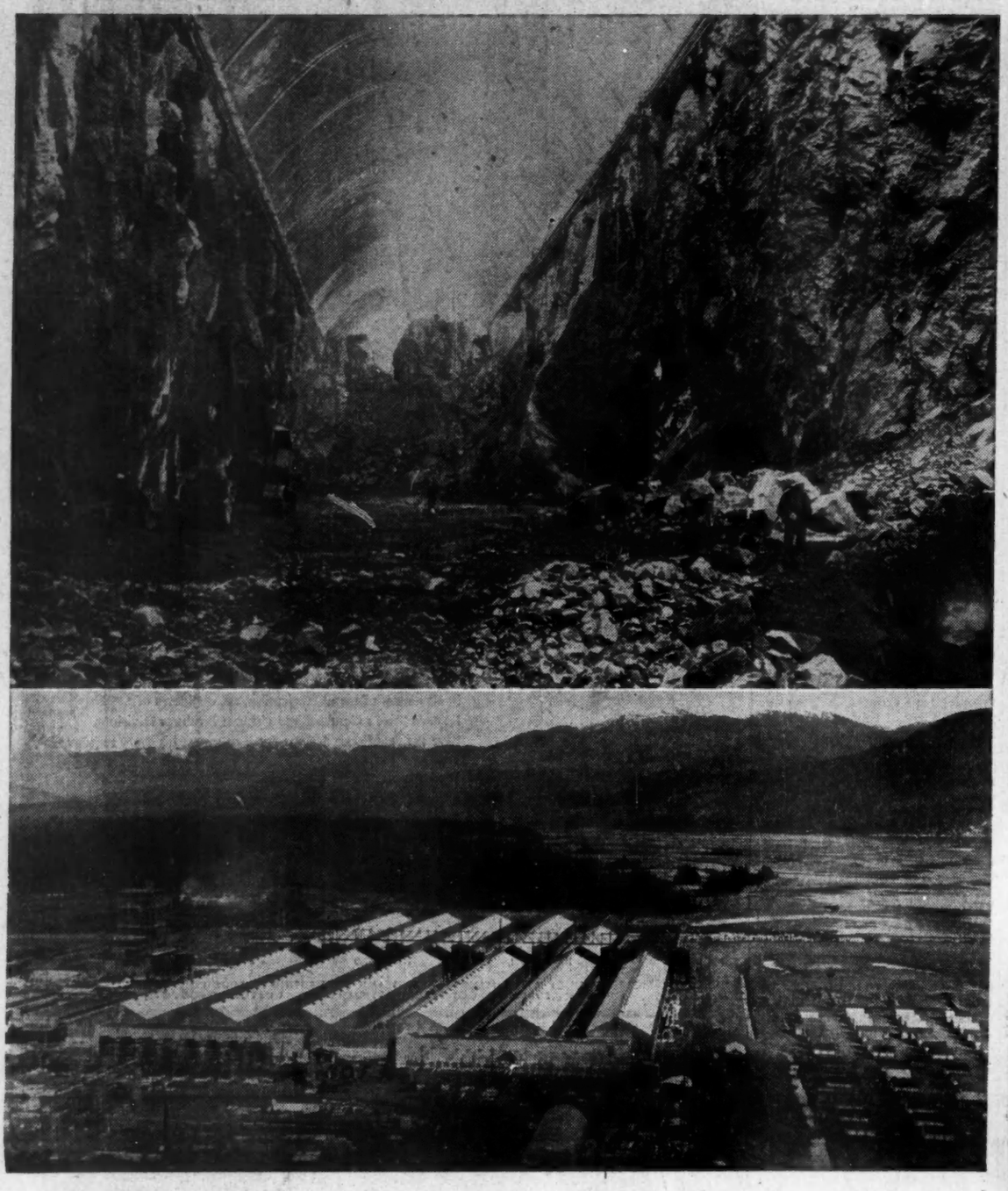

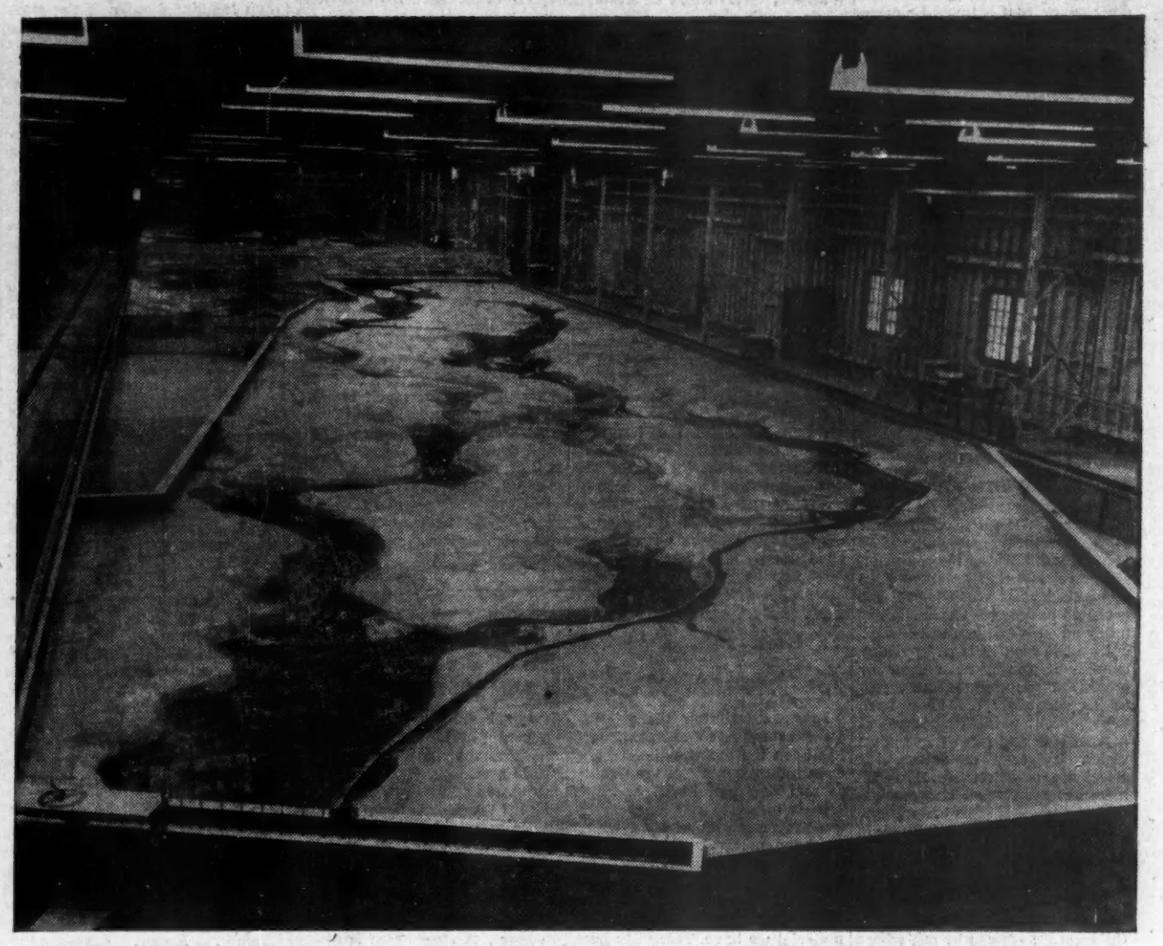

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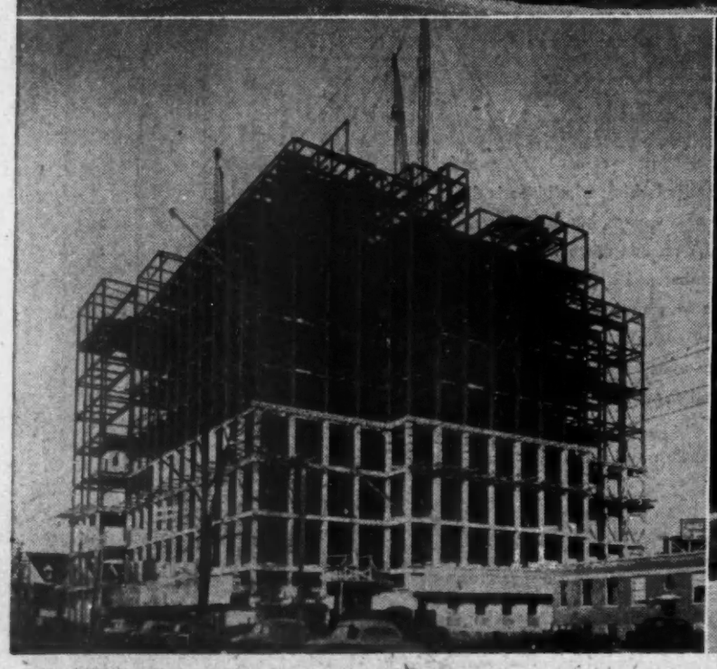

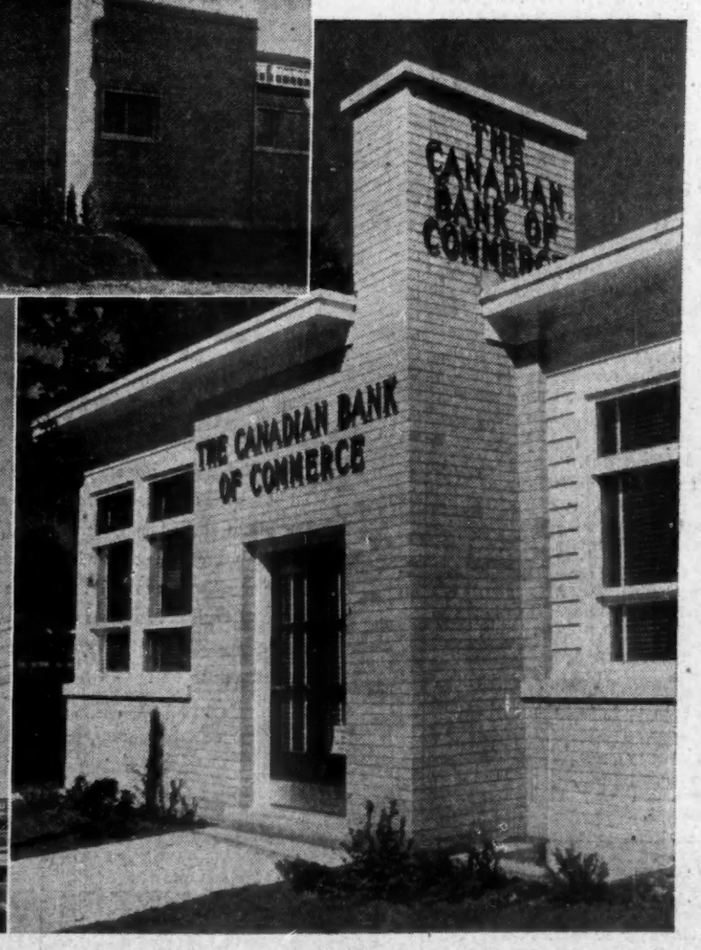

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What's New In Structural Systems

Here Are The Latest Advances In Wood, Steel, Concrete

By C. D. CARRUTHERS

Important changes that will affect the cost picture for buyers of new buildings are taking place slowly but surely. One of Canada's outstanding engineers, C. D. Carruthers of Wallace, Carruthers & Associates, Toronto, gave his opinions on these changes to the 1953 annual assembly of the Royal Architectural Institute of Canada. Here is a digest of his paper, of interest to laymen as well as architects and engineers.

"Trends" is a very elastic word and indicates a slow but not necessarily positive moment in some direction. This movement normally is determined by the economic factor, that is toward a more economical structure for the class of structure whether it be ordinary wood joist, mill type using heavy timber, nonburning types, or fire-resistive.

But there are other factors that may help or sometimes may temporarily obstruct this trend toward a more economic structure —the desire of engineers for more accurate design, taking into account more of the factors affecting stresses in the structure; or as is often the case with engineers, as with other people, just the desire to do something different or more sensational.

I do not intend to develop any new sensational ideas but rather to try and bring into proper focus some of the developments that have occurred since the end of the last war. The sensational may be more interesting but we doubt whether it is the more useful.

Wood Structures

There are very few architects who are not familiar with wood as a structural material. They generally are brought up on wood structures since in practically all residential work wood is still the accepted building material. It has many advantages, you can always cut a little nick in it without any trouble if for some reason or other the plumbing doesn't just fit as planned. We have been using up our natural resources at a great rate and from those areas which are easy of access, the select grades of structural woods have become scarcer and scarcer.

However, there has been a new development in the last 10 to 15 years in the gluing together of woods to make laminated types of beams or columns or any other shapes you may desire. This scheme has the advantage that the good grades can be put where they are required and the lower grades down to No. 2 common may be placed in those parts of the member not subjected to serious stressing.

Actually, laminated beams made of several different grades of wood are even better than if they had been made of one piece cut from a log. In the one piece you must accept all the defects, and hence the whole stick will be graded down even though most of the piece is excellent material. The laminated product is better in many other respects; since it is made of small pieces, generally 2 x 4 or 2 x 6, it can be dried under controlled conditions with little checking and splitting, and when installed will have the proper moisture content.

In a structure in service there will be very little change in the moisture content throughout the years. Some people may be a little suspicious of the glue but in all the tests we have seen never once have we found a failure to occur in the glue. Also by laminating these wood beams one can have almost any size and shape that is desired although there are certain natural factors that must be taken into account.

It is preferable to use multiples of standard building units, that is 2 x 4s, 2 x 6s or ⅞ material 4 in. or 6 in. wide. Also, the degree to which members may be curved is determined by the thickness of the members.

One of the interesting things that can be done with laminated wood is that even in ordinary horizontal beams any necessary camber can be introduced in a similar manner to which you do with a steel truss. Except that with the wood of course each individual piece of the beam is slightly cambered.

It is noticeable that since the development of laminated type of structure there has been quite a comeback in wood construction of the mill type and long span beam or truss types. The increased stresses allowed for laminated structures do allow the use of increased spans which is one of the most noticeable tendencies today in all forms of construction.

One of the problems of wood construction, of course, is the connection. These generally have to be made using cast iron or steel members to connect together the various pieces with bolts or with some of the newer patent connectors. Probably some day someone will invent a glue which can be just painted on in the field and the two members stuck together without pressure.

At present, all gluing requires a high degree of pressure. No gluing in the field should ever be allowed. Only factory production of this type of material should be accepted. This allows careful control of methods, materials and pressures.

Welding The Biggest Advance In Structural Steel Field

In structural steel there is not quite as much to report. There has been the maintenance of and even improvements in the quality as manufactured in U. S. mills. This is offset to some degree by the poorer grades of steel which we have received in some cases from European countries.

Structural steel as rolled on this continent is the most consistently uniform type of structural material we have. There has been much greater need for careful inspection of structural steels and all steels during the last few years because of the shortages and the tendency of some people to use anything that has the name steel attached to it. This will continue until the shortage is over.

There has been a development in recent years which has changed the type of section used. This is the use of gauge material pressed into the form of channels or I beams in order to make very light sections. These have not always been acceptable under existing codes although if kept to their proper place are in my opinion quite a satisfactory type of member.

The biggest advance in steel construction has been the introduction of welding as a method of attaching members together. I am often asked why there are not more all-welded structures today. The only reply is that until fabricating shops have decided they can afford more space for welding, welding will be held back in structural fabrication.

With welding an accepted method of jointing members, there are many savings that can be made in the structural steel members that go to make up the whole assembly. Once welding is introduced then we have the same concept of the structural frame as we have with concrete, that is, a continuous structure both as regards columns and beams.

In steel, this gives a more noticeable economy even than in concrete. A steel beam is always rolled the same depth throughout its length, therefore, if the size of the beam is reduced, it is reduced for the full length. One of the effects of using continuity in the steel structure will be to increase slightly, but only slightly, the size of the columns, since with rigid connections of beams to columns the columns are called upon to take moment as well as the vertical load.

In some degree this distribution of moments to beams and columns may be varied by using semi-rigid connections, that is, designing the connection of a beam to a column for the amount of moment you wish the column to take. This is a design technique that still must be handled with kid gloves.

Welding allows much greater freedom in shaping the structure. Individual members may be built up from plates, or a rolled beam strengthened by plates due to high local stresses. In trusses, particularly light trusses, welding gives real economy due to saving in detail. Hence the development of long-span joist types.

Welding allows the economic use of rigid frames, particularly the arched type or ridge type, though these require careful proportioning of height of column and height of ridge to develop full economy. Cost will be less than laminated wood if the steel does not need to be covered or fireproofed.

Other Structure Types

Another type of structure that welding makes easier to construct is the Vierendee truss or a truss without diagonals. These trusses will be expensive structurally but may sometimes fit the bill beautifully. Reasonable economy can be achieved by using diagonals in the end panels and leaving the centre panels only without diagonals. They could be an architect's delight but don't use them indiscriminately. They can be very expensive under heavy or variable load conditions.

One other structural form that welding provides for economic development is the use of large square or rectangular columns and beams which can be used for ducts and piping. There are, of course, problems of getting in and out of the members with holes of any great size and also the almost impossible problem of fireproofing the steel. It is probable that the present scheme of separate mechanical ducts and pipe spaces is the more economical.

I rather look forward to the day when structural steel buildings will be all welded structures and will be designed in the beginning as welded structures not as has been done so often to date, designed as riveted or bolted structures and then connected together by welding. That scheme of things does not give near the full savings that can be made by welding.

Another development in structural steel is the use of space frames, that is the use of relatively light trussed members which, by arching action, can be made to span over large areas. Domes are a good example of space frames. Recent developments have indicated effective use of structural steel trusses in rectangular structures in the form of space frames. Saw-tooth roof construction, where both the inclined surfaces are made into trusses with the one supporting the other, is a grade example.

One form of connection which may develop in the near future and for which there is promise of reducing costs of connections is the use of high-strength bolts with washers in place of rivets or turned bolts.

These high-strength bolts are made of special carbon steels. They have heavy washers underneath the head and the nut which allow the tightening of the bolts so that the stress in the bolt is somewhere between 70,000 lb. and 80,000 lb. per square inch. By this scheme, the pieces are clamped together and held in place through friction rather than the shear of one member on another through the bolt.

These have been used to a small degree in U.S. by both Bethlehem Steel Corp. and United States Steel but have not been adopted in this country. The bolts and washers can be manufactured here. The only problem is one of field control of the amount of tension required in the bolts.

The principle appears to be satisfactory to all who have studied the question and it is largely a matter of developing field controls. Of course, field controls probably also are required for both ordinary bolting and riveting but since they have been accepted practices for years and years, no one really questions them, although there is probably as much bad workmanship in riveting as there would be if this type of high-stress bolts were used.

We have already had the same problem of field and shop control in the case of welding. It has been successfully solved in Canada through the work of the Canadian Welding Bureau. We have an excellent setup, one many of our neighboring countries envy.

High-Strength Steel

To date, there has been little if any use of high strength steels in structural work. Generally the standard 20,000 lb. stress carbon steel has been found to be the most economical and only if extra strength in columns is required have special steels ever been used.

There have been a couple of occasions in Toronto where silicon steel with an increase in stress of about 20% has been used. However, unless some real saving in size of columns is achieved it is hardly worthwhile. To use it in beams and girders would not make any noticeable saving in either size and would certainly cost a good deal more.

One feature of structural steel construction which is quite new, is the development of long-span open-web steel joist and the long-span steel joist is the same type of joist but capable of being used up to spans of 75 ft.

The use of these joists has developed real economies from the point of view of roof construction. Provided deflections are watched they can also be used for floor construction. Use of these joists on roof construction allows the economical framing of relatively large bays. 40 ft. to 50 ft. square bays are quite commonplace and can be done with trusses and long-span joists with a poundage of steel not much greater than would be used for a 30 ft. square bay using rolled sections.

Use of long-span joists and trusses has a further advantage in the roof construction particularly in factories in that the pipes and ducts can be run through the truss area with the result that all of the space beneath the trusses is usable space.

(Continued on page 55)

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INTERNATIONAL TRUCKS

INTERNATIONAL HARVESTER COMPANY OF CANADA LIMITED, HAMILTON, ONTARIO

$1.4 Million For Contracts in Jan.

Contracts calling for a total approved expenditure of $1,412,860 were awarded by the Department of Public Works during the first month of 1954.

Of this amount, $833,305.44 is for new construction in the architectural and engineering divisions, and $531,954.74 is for repairs and maintenance of existing structures.

A $47,600 contract for dredging in the Fraser River at Douglas Island, B.C., was awarded to the B. C. Bridge & Dredging Co. of Vancouver.

Other major contracts awards include the following:

FORT ST. JAMES, B.C., wharf extension and building of floats, Interior Contracting Co., of Penticton, B.C., $52,605.

PORT ALBERNI, B.C., assembly wharf extensions, Vancouver Pile Driving & Construction Co., Vancouver, $66,740.44.

STEVESTON, B.C., construction of breakwater, Coast Quarries Ltd., Vancouver, $485,750.

COLLINGWOOD, ONT., harbor improvements (east harbor wall reconstruction), Canadian Dredge & Dock Co., Toronto, $142,510.70.

MEAFORD, ONT., repairs to west harbor wall, Marples Ridgway Ltd., Montreal, $60,896.

OTTAWA, construction of new mezzanine floors in the Connaught Building, Ross-Meagher Ltd., Ottawa, $75,750.

GASPE, QUE., for construction of a new Federal Public Building, Peninsula Construction Co., Gaspe, Que., $212,500.

CHURCH POINT (DIGBY COUNTY), N.S., repairs to harbor retaining wall, Kennedy Construction Co., Yarmouth, N.S., $65,821.

Canadian Executive Writes

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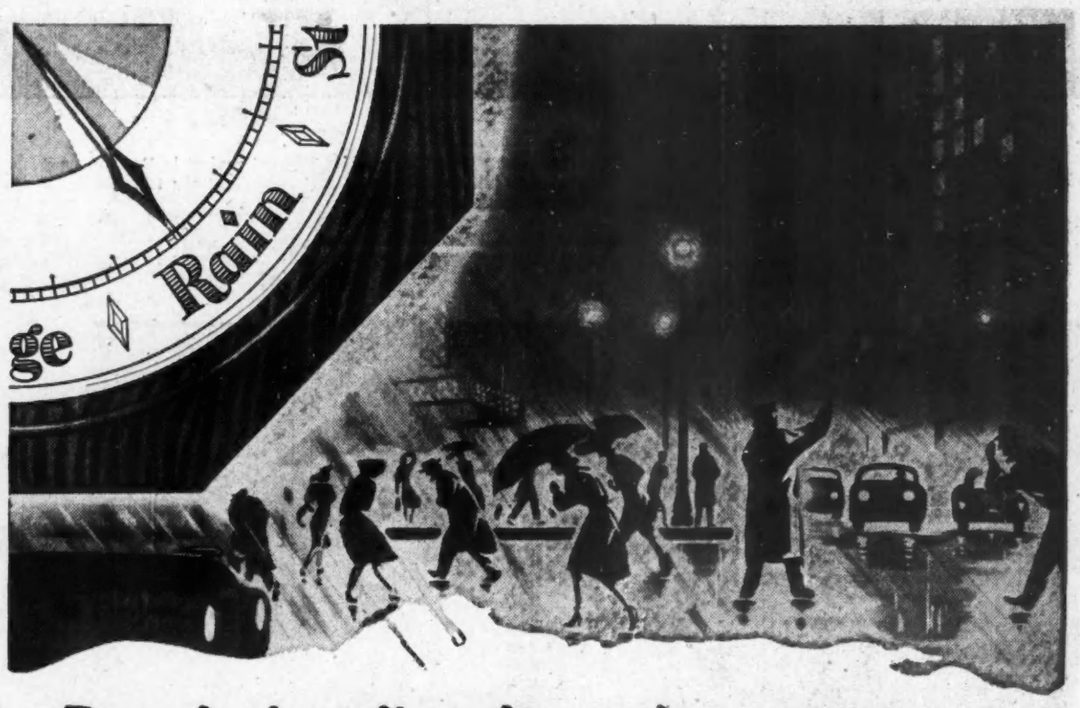

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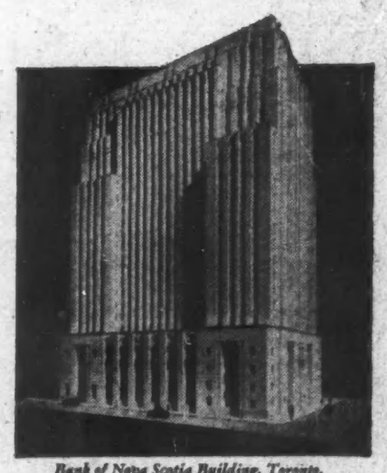

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What's New In Structural Systems

Here Are Main Advantages In Concrete

(Continued from page 54)

Of all the materials mentioned, concrete is one of the newest in its development as a major structural material in building. True, concrete or cements which allow you to make concrete, have been known for thousands of years but the use of a mixture of cement and aggregate with water to form a plastic material which can be poured into forms and reinforced with steel rods is relatively new, dating from probably 1875.

The fact that it is a plastic and can be poured into forms made into whatever shape or size one may desire gives it some advantages for use over other materials.

It is very easy to fit its shape to the shape of the facing material that is to be used or it may be shaped so as to be the facing itself. With the introduction of concrete, designers naturally thought of making the beams of the same type as was used in wood or in steel construction, that is, relatively narrow beams but fairly deep.

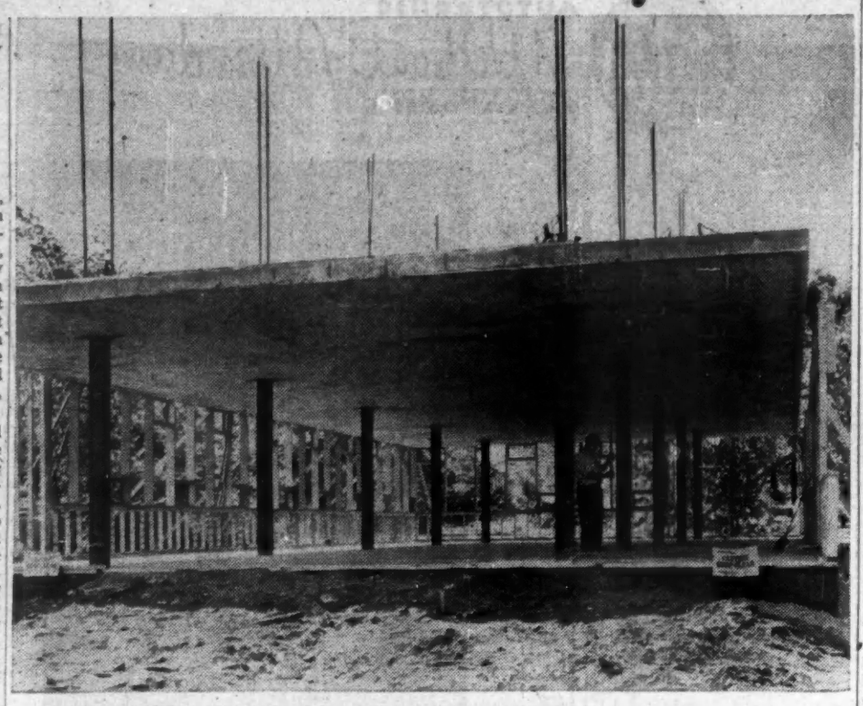
This does tend toward economy. You will note in practically every textbook on concrete that there is a formula for determining the economic depth of concrete beams. Many of the concrete structures, at least up to the last few years, were of this beam and slab type.

The other type of structure generally associated with reinforced concrete floor systems, is the flat slab. In this type of structure there are no beams at all. There is a dropped area around the column and there is a flared column capital in most cases.

It is only in concrete that it can be used. It has many advantages. It does not take up very much height. It allows a free flow of pipes and ducts underneath it without the necessity of crossing under large beams.

It has been found under test load to have very high strengths even when loaded well in excess of the desired strength. It is capable of considerable variation in column settlement. That is, it is a relatively flexible type of structure.

It was generally used for buildings with relatively heavy live load, say 125 per square foot and up. It has of course certain disadvantages. It is difficult to cut large holes through the floor particularly adjacent to the columns.



In the Youtz-Slick "lift-slab" method of construction, concrete floors are poured on the ground, then hoisted with jacks into position overhead. This has been used for multi-story construction in Winnipeg. In picture, one floor has just been raised at a small Oakville factory.

Even large pipes often cannot be put through immediately adjacent to the column. It is not satisfactory for framing which has an irregular pattern, although what framing really is satisfactory on irregular patterns of columns? The flared column head is a disadvantage in types of buildings where flat finished ceiling is desired.

In recent years there has been a greater tendency to use this flat slab construction for lightly loaded buildings where it is possible to have a uniform spacing of columns at spans that are in the range of 18 to 25 ft.

In light-loaded structures it is nearly always possible to omit the column capital and have just the slab and the drop panel that occurs around the column. This has resulted in some very low-cost structures of the fire-resistive type and has had the additional advantage of reducing the depth of the structural system by 1 ft. or more.

In one recent building we designed, it was possible through the use of this type of floor system to get 12 stories instead of 11 stories in the 130 ft. height allowed for buildings without setbacks.

Broad Flat Beams

Another development in concrete work which has developed from this flat slab idea is the use of broad flat beams instead of the narrow deep beams. It is true that these wide flat beams add to the amount of concrete and to the amount of reinforcing steel required but reduce very considerably the form work due to the large flat areas and in this way reduce the costs sufficiently to balance the extra concrete and reinforcing steel.

It is normal practice to have these beams not much more than 6-8 ft. deeper than the slabs they are supporting. They have other advantages too in that it is possible to bring pipes up through these broad flat beams even directly in contact with the columns.

For the use of broad flat beams on the columns line, again you must have an even spacing of columns, although not quite as necessary as for the flat slab construction.

From this development came the use of corridor beam construction. When we have two rows of columns, one on either side of the corridor probably 8 ft. centre to centre, you could use two of these broad flat beams, one on each row of column but that would leave a relatively small space between them.

Instead of paying the extra cost of the forms it is now general to pour this corridor slab the same depth right across. Hence the name corridor beam. It is really the two beams joined together. It has one advantage in that columns may be offset from one another across the corridor provided they are not at such a distance that reinforcing between them becomes a problem.

As with all structures, uniformity of layout adds to the economy. If the side wings of such a structure exceed say 20 ft. then it is often more economical to run the beams across the building rather than parallel with the corridor. Again, we would use the broad flat beams.

They have one additional advantage over the narrow beam: they very often reduce the slab thickness by as much as 1½ in. to 2 in. due to the reduction in span between the beams. Where they have their limitations is when there are any heavy loads such as masonry walls or offset columns to be carried. Offset columns in concrete construction are always a problem since the concrete is relatively poor material in shear. Offset columns generally set up very high shearing stresses. In such cases it is often necessary to introduce structural steel beams even into a concrete frame.

Lift Slab Method

Once a designer has been able to reduce the difference in thickness of his beams and slabs, say, something in the order of 6 ft. he begins to think in terms of not having any projections below the slab at all, that is, he achieves a plate floor which is the same thickness throughout. This has some very marked advantages if it can be achieved particularly if ceilings are not required. Obviously the form work would be more economical since it is just a flat sheet.

Then one day certain individuals began to wonder if it wouldn't be possible to omit the form work completely. It was obvious that if the slab could be poured down on top of another slab on the ground and then raised up to its position that it would be considerably more economical with form work at 40 to 60c a square ft.

This lead to the development of what is known as the lift slab construction. It gives promise of becoming a very lusty development in concrete construction. First the footings are poured, the steel columns are set, the slab on earth is then poured to act as a form for the slabs above.

It may be necessary to construct some wood formwork around the outside of the slab on earth since very often you wish to have an overhang for the floors and roof slabs above. Then the reinforcing steel for the slab is set and the concrete poured.

The same scheme is followed through for the other floors and roof. After the concrete has developed sufficient strength to handle the stresses due to dead load, the slab can be raised into position. The whole trick in this type of construction is the jacks that are used to lift the slabs on treaded rods.

The maximum load the jack will pick up is 100,000 lb. although it is always advisable to keep your lift load well below this figure to approximately 60,000-70,000 lb., and note that continuity increases load on some columns and decreases it on others.

There are certain other limitations which we should point out. The minimum distance from the edge of a slab to the centre line of the columns is 2 ft. 6 in. It is much better if the distance from the edge of the slab to the centre line of the column is made one third to one quarter of the span. The layout of the columns should be uniform and the most economical spacing is from 18 ft. to 25 ft., depending on the amount of live load can be carried.

Greater spans are possible provided means are used to lighten up the slab. The limitation on story height is due to wind bracing requirements in the range of a maximum of 9 stories; 3 to 4 stories the optimum height; though 6 stories quite possible without any serious trouble.

Naturally, on higher buildings your procedure becomes a bit more complicated. The class of concrete used in these slabs is never less than 3,000 and is generally in the order of 3,500 to 5,000 lb. per square inch at 28 day strength.

Provided adequate measures are taken to get good aggregates, set up proper mixes, and watch the water content there is no reason why these concretes cannot be manufactured and they are much easier to place. I see no reason why concrete of 8,000 lb. per square inch could not be developed, although extreme care would have to be used in the choice of aggregates, the grading and the mixing.

Canadian Weakness

Also in the use of high strength concrete it is necessary to pay far more attention to setting of the reinforcing steel than is too often the custom. Setting of reinforcing steel is one of the weakest features of Canadian construction.

While the use of lift slabs does require more concrete and better concrete and more reinforcing and better placing of the reinforcing the savings by using this type of construction are as far as the structure is concerned in the order of 60c to $1.00 sq. ft. We use an average figure of 75c sq. ft. saving for a lift slab over the same type of flat slab poured in place using forms. Relative to other types of construction we consider it just under the cost of the structural steel frame using precast slabs.

Great Possibilities

This type of construction can lead to a revolution in concrete construction if its use comes into general practice. I do not think we have by any means appreciated as yet the possibilities of pouring slabs on the ground level and hoisting them into the air.

I do not see that it needs to be limited to slabs which are poured on top of one another. Many other types of construction even when forms are used could be employed. Even relatively complicated types of structure could be poured on forms on the ground, then the slab lifted, the forms removed when it is up about 6 ft. and the slab then taken up to its proper location.

By the use of forms, it is possible to greatly lighten your structure. Actually there is one manufacturer in U. S. who is making a plastic-type dome form particularly for use on lift slab types of construction reducing the weight of the construction by as much as 50%.

I do not see when structural steel might not be fabricated together at grade level and the whole floor section hoisted up to its proper place by the use of this jack. We have designed several buildings using lift slab.

There is one thing it does require. Instead of somehow fitting a structure into an architectural layout you must start with some very positive idea of your column layout and fit your architecture into that. The minute the spans become many various lengths and the columns are offset from regular grid lines, etc., your lift slab

(Continued on page 56)

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Structural Systems

(Continued from page 55)

just doesn't work out satisfactorily.

Where underfloor ducts are required in this type of slab we suggest the use of a metal pipe underfloor duct placed down about 3 in. below the top of the rough slab which in the case of the lift slab is generally the finished slab. This forms an economical and satisfactory type of underfloor duct system which can have any reasonable spacing.

If it is desired to raise the metal underfloor duct to say 1½ in. below the finished rough slab then the ducts must be kept away from the one quarter panel area centred on the column. Since in that area the concentration of steel is such that you cannot get your ducts above a level approximately 3 in. below the top of the rough slab.

This same type of underfloor duct system can be used with flat slab and as a matter of fact with most types of concrete construction although with beams supporting the slabs it is often necessary to restrict the location of the ducts.

Precast Progress

Another development in concrete which is most interesting is the use of precast concrete members of various sizes and types. We might call them factory-made units of concrete.

We are familiar with the small slabs eight to 10 ft. long used for roof construction or in some cases for floor construction. These lengths are now being greatly increased. These may be either lightweight concrete or standard stone concrete.

They do form an economical method for roofs or floors particularly where the height of shoring required to hold the formwork in place is excessive. They are not so satisfactory or economical when used on ordinary poured concrete beams. But if precast beams are used they will work satisfactorily. Medium-span panels could be built on concrete beams poured on the ground and lifted into place by lift slab methods.

One of the most interesting of these precast slabs is the slab which is used to form ducts as well as forming support for floor or roof. These ducts may be used either for purposes of heating or as electrical raceways. Careful detail needs to be used in order to make these slabs act as a unit and be properly anchored to the supporting members.

This is true of all types of precast concrete and requires considerable thought to make workable connections between slabs and beams and columns, columns and footings. It is very easy to introduce high torsional stresses due to badly-designed eccentric connections.

One must always take into account the effect of lateral forces. It is true that the only lateral forces we are used to considering are those due to wind or action of machinery, but there are others just as important. Those due to earthquakes or explosions.

We have on the boards at present a building in which it is proposed to use not only precast slabs but also the walls, or interior walls at least, to act as supports for the structural roof slabs which in this particular case we propose to make a poured slab partially because of the type of building and partially because we are using the poured slab to get sufficient lateral rigidity.

In this particular case, the finishes are not an important factor and the concrete will be used as the finished material. It would appear to indicate some very desirable savings but will require careful study of the electrical and mechanical installations in order that they may be properly handled.

Precast joists are not unknown although they have not been used to a great degree in this country. Again it is a matter of economics which apparently Canadians are much more concerned with than our U. S. friends, where they will experiment even at additional cost.

The use of precast beams has been found acceptable in many buildings where uniformity of layout will allow repetition of the same size member so that forms may be reused. If forms cannot be reused then the only additional cost between the precast member and the one poured in place is the actual shoring of the formwork.

There is no particular reason why full structural assemblies using precast concrete units cannot be made but care must be taken that there are sufficient members of the same size to make form costs savings worthwhile, and that the connections of members to one another can be easily and simply made. The welding together of small steel members embedded in and anchored to the precast concrete is a very satisfactory method structurally.

This adherence to uniform layouts of structural work is one of the factors which will bring down costs faster than any other procedure. This is particularly true if the building is of a size that forms can be reused several times.

The use of plywood for formwork has become quite general where there is sufficient reuses of the forms to make it worthwhile introducing it to begin with. It is possible with reasonable care in the use of plywood forms to have anywhere from 10 to 20 reuses of the same material. The new types of form oils that have been developed break almost completely the adhesion between the concrete and the form.

Prestressed Concrete

Exponents of prestressed concrete are very enthusiastic about its use and seem ready to see it used anywhere whether acceptable or not. I am not as enthusiastic. I appreciate its use on long span concrete girders such as for roofs, on bridge work where real savings in depth are effective in producing savings in other ways than in structure, e.g., in grading of new roads, or in alteration of grades of existing roads.

I can appreciate its use in precast members manufactured in large quantities under factory controlled conditions. Then real savings would be possible. That it will develop there is no doubt. Let us hope that its enthusiasts do not use it in the wrong place too often and in that way retard its development.

This subject of shell-type structures is one all by itself and one which can be most interesting. How far its development may go in America is questionable since with our relatively low material costs and high labor costs the economics of the problem may limit the construction of these types of structures for some time to come except for some very specific conditions.

In a recent issue of the American Concrete Institute Journal a list of structures having shell-type roofs and generally it is only used for roof construction, only 16 were in the U. S. and one in Canada. All the rest were European or South American where the labor costs are very low and material costs relatively high.

Just the same they are going to be used more in the future both in U. S. and in Canada.

One of the most often asked questions is—What will this cost? To determine the costs of any structure within limits the client

(Continued on page 57)

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This Ends the Cracker Barrel Era

$134 Millions For New Store Construction

Retailing is a $12,000 million business in Canada. It's a new kind of retailing, moving on a new socio-economic tide. And that means big construction to house this industry's expansion.

The shops and stores themselves—sales appeals in chrome, glass and design—are as important in the new retailing as the merchant's salesmanship or the goods he sells.

It wasn't always so. Father recalls dim, quiet stores—musty rooms with small windows and tall ceilings, jammed with semi-identified merchandise.

In Canada that store has passed with the buckboard and the gas lamp. The brown paper wrap has given way to the idea-man's package; a deep-freeze display has ousted the cracker barrel.

The store is no longer just a centre where the customer buys; it's a centre where he's sold. More accurately, where he sells himself. Today's store is a bright, spacious showcase for modern merchandise.

It's all part of that thundering revolution in Suburbia, the mid-century trek for elbow room—the source of a three way battle for supremacy between the shopping centre, the lone-wolf merchant and the downtown shop.

In the scurry of competition for the consumer's retail dollar, salesmanship, architecture and construction have become a unified force in building more, bigger, better, sales-stimulating retail premises.

Last year the retailers spent $134.1 millions on the task, a new peak for the field.

Near the town of Mount Royal, Que., for example, Maxwell Cummings & Son is planning a $20 million suburban shopping centre, Canada's largest. A few miles away, in downtown Montreal, Simpsons Ltd. is spending $5 millions modernizing its department store.

Morgan's, long one of the most conservative purveyors of quality to Montreal's "carriage trade," has shattered precedent by deciding to participate in the new Dorval Garden Shopping Centre, selling low-cost merchandise to Suburbians.

All precedent went by the board when Birks and Holt-Renfrew, bulwarks of distinguished Montreal retailing, moved into the same shopping centre. The handwriting, for all but the insolvent and the blind, was large and bold on the retail wall.

If the downtown stores can't beat the suburban centres, they'll join them. They're not scorning a trend that looks as though it's here for keeps.

Simpsons-Sears Ltd., for example, is siting its every major new department store as the hub—the drawing card—of bustling shopping centres.

This doesn't mean that the downtown stores aren't fighting the suburban competition for sales; they're battling tooth and nail with every trick in the book. Garages for easier parking, more conveniences, more luxuries.

This does mean that the construction industry is doing a record business in the retail field. Men and machines are busy from coast to coast building the ramparts for a profitable, everybody's-going-to-win war.

Here's the picture as it appeared this week, on the threshold of a promising new construction year:

The biggest news in recent weeks came from Don Mills, just outside Toronto, and from Hamilton, both from the same man.

Two department stores, 60 to 70 smaller stores, an office building, banks, warehouses and showrooms, medical and dental centre, and free parking space to accommodate 5,000 cars at one time—that, briefly, is the make-up of a huge new shopping centre which is to be built on the former Hamilton Jockey Club property.

First details of the project were announced this week by Karl C. Fraser, president of Greater Hamilton Shopping Centre Ltd. The 71-acre project is bounded by Ottawa and Barton Sts., Kenilworth Ave. and Beach Rd., and lies three miles from the centre of downtown Hamilton.

Construction of the first building—the Simpsons-Sears department store—is already under way, and Mr. Fraser said that construction of a number of other stores would get under way this year and that one or two would probably be completed in time for pre-Christmas opening.

The Simpsons-Sears store—a two-story building containing 200,000 sq. ft. of floor space—is being built by the department store chain on the 20 acres owned by Simpsons-Sears. Of the 5,000 parking spaces, 3,800 will be on the 51 acres owned by Greater Hamilton Shopping Centre Ltd. and 1,200 on the Simpsons-Sears property.

Plans call for the construction of a second two-story department store with approximately 150,000 sq. ft. of floor space. In addition there will be 60 to 70 smaller shopping goods stores, also on two levels, with estimated floor space of 250,000 sq. ft. . . . a total of 400,000 sq. ft. for the second department store and the smaller stores.

(For purposes of comparison, Eaton's, largest store in Hamilton today, contains roughly 190,000 sq. ft. of floor space.)

The second department store and the 60 to 70 smaller shopping goods stores will be completely covered and air-conditioned as a unit. The pattern here is similar to the main section of the 44-acre shopping centre to be built by Don Mills Developments Ltd. in the new, modern, integrated Metropolitan Toronto community of Don Mills. Mr. Fraser, who is also president of Don Mills Developments Ltd., announced plans for the Don Mills shopping centre in Toronto last week.

These Are Regional CCA Chiefs

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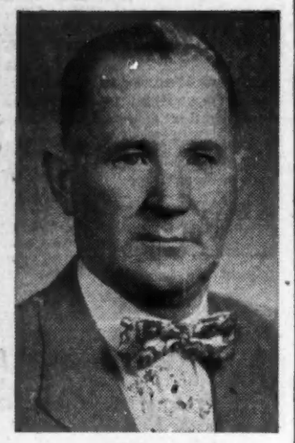

STUART OLSON
of Mill & Olson Ltd., Edmonton, Provincial Vice-President, Alberta.

Probably no city in Canada has seen its shopping centre population jump as Montreal's has. One observer there estimates that shopping centres worth $30 millions will be operating in, near or around the metropolis by 1955.

Some of the 1953 highlights:

—A $1.5-million Champlain Shopping Centre opened by S. D. Miller & Sons, with some 150,000 sq. ft. and 18 stores; parking facilities for more than 500 cars.

—Boulevard Shopping Centre, costing $3 million and containing about 200,000 sq. ft., opened in the latter part of the year. Built by Maxwell Cummings & Son.

—Bourget Construction Ltd. building a 14-store centre at Ville St. Laurent.

—Dorval Gardens Shopping Centre expected to open this April. It will have 37 stores and a parking area for 2,000 cars.

—At the suburb of Greenfield Park a 40-store unit will be built on a 40-acre site by George A. Fuller Co., New York. This centre will have a parking capacity of 3,000 cars.

—Maxwell Cummings & Son is beginning to acquire land for a $15 million to $20 million centre which will accommodate 50-60 stores, with a parking area for some 5,000 vehicles. Said to be the largest centre in Canada.

—Dixie Shopping Centre, an 18-store, $1-million centre, due to open this year.

By no means has shopping centre development been confined to Central Canada.

Winnipeg, for example, heard that a large shopping centre will be started by Arle Realty Ltd. in the southwest end of the city sometime this year. Plans for the proposed $10-million centre haven't been finalized.

Halifax and environs soon may see the Maritimes' first large shopping centre go up at Dartmouth, N.S. Described as a "multi-million-dollar" setup, the centre is planned to lie near the end of the new Halifax-Dartmouth bridge.

The Maritimes venture, said to be a 10-acre centre, is also the plan of Maxwell Cummings & Son of Montreal.

Workmen have begun preliminaries on a $5-million shopping centre in Edmonton, which should be ready by 1955. Woodward Stores Ltd., a retail firm spread through B. C., is reported ready to occupy half of its 400,000 sq. ft. shopping area.

In the far West, Vancouver is awaiting the opening of an $8 million Simpsons-Sears department store at Burnaby, a suburb. Right next door, Kelley, Douglas & Co. is building a supermarket. Across on Vancouver Island, a Simpsons-Sears store will be the hub of another shopping centre, including a Canada Safeway Ltd. market. Alex Sāba, an independent retailer, opened a $75,000

(Continued on page 58)

Here Are Latest Advances In Wood, Steel, Concrete

(Continued from page 56)

will appreciate, is always somewhat of a task.

What one must also realize is that the structure is only part of a building and that the other parts, the finishes, the ceilings, the walls, the type of electrical and mechanical equipment, the type of heating, all help to decide the type of structure which should be used on any particular building.

It is not possible to treat the structure as a separate entity and say here is the most economical scheme for all the conditions that you may have in this building. Subject to those limitations as considering only normal spans we can take the costs of structures in an ascending scale as follows:

(1) Wood joist on wood stud walls.

(2) Wood joist on masonry walls.

(3) Wood joist on wood beams.

(4) Wood plank on wood beams.

(5) Wood joist on structural steel beams and columns.

(6) Wood plank on steel joist and steel beams.

(7) Steel deck on structural steel either rolled beams or open web joist types.

(8) Lift slab construction for roofs.

(9) Precast concrete slabs or asbestos roof deck on structural steel.

(10) Poured concrete on fireproofed structural steel in its various forms. Poured concrete.

It is not possible to differentiate between costs of structural forms of this type without detailed information since sometimes all concrete and sometimes steel and concrete is the more economical.

One other item on costs that is often in question is when to use lightweight concrete aggregates. Again no complete answer is possible. There is economy in the use of lightweight concrete aggregates when there is enough saving in the structural frame to pay for the extra cost of the light weight concrete. The only way to find out is to design your structure both ways and compare relative costs. We have found that for steel-framed office building that when spans of beams and girders are over 35 ft. there is a saving in using lightweight concrete. In concrete construction the span at which savings starts appears to be about the same.

There are other factors affecting costs that should always be kept in mind when choosing types of structure. There is fireproofing requirements, the question of sprinklers which are tied in with insurance costs which when considered over a period of years may be a determining factor. There is the factor of maintenance, the factor of salvage and let us not forget today entirely the question of appearance. They should be assessed both by the architect and the owner.

I have attempted to cover present types of construction and suggest forms that may be trends of the future.

I am sure Canadian engineers and architects can be expected to develop along with the rest of the world. We may be more conservative, we may watch the economic factor more, we may not be as interested in the spectacular just because it is spectacular; we certainly are not likely to do anything and everything with a lot of ballyhoo but I am sure we will achieve the reputation of being sound and reliable in our thinking and in our methods.

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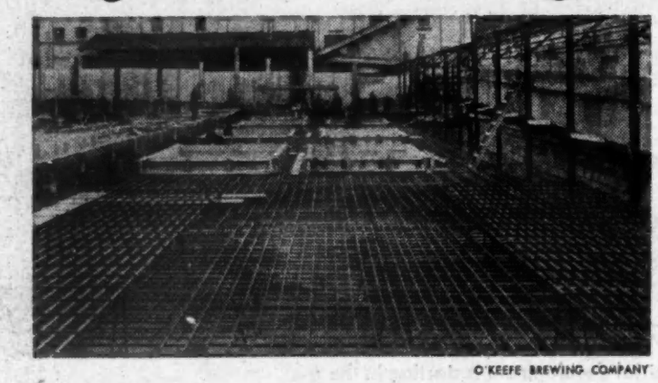

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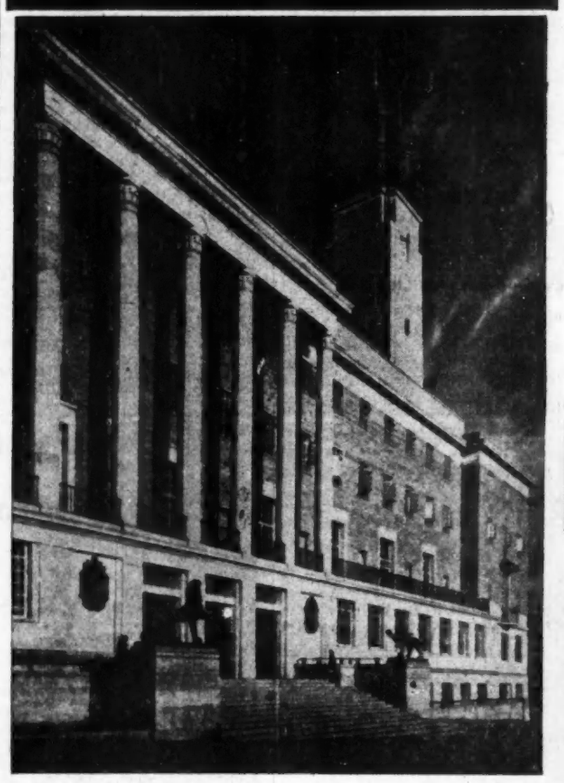
THREE QUARTERS OF A CENTURY CONSTRUCTING... AROUND THE WORLD...

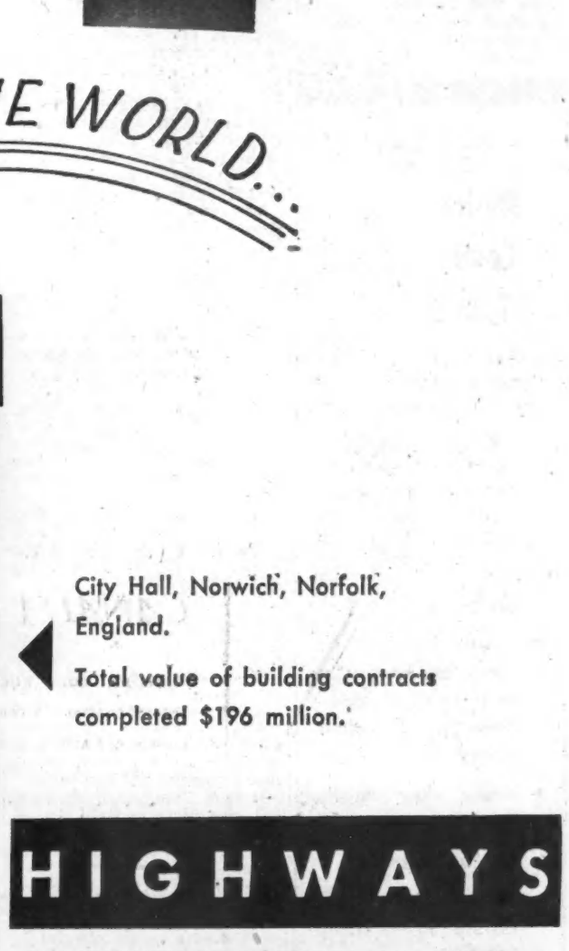
BUILDINGS



City Hall, Norwich, Norfolk, England.

Total value of building contracts completed $196 million.

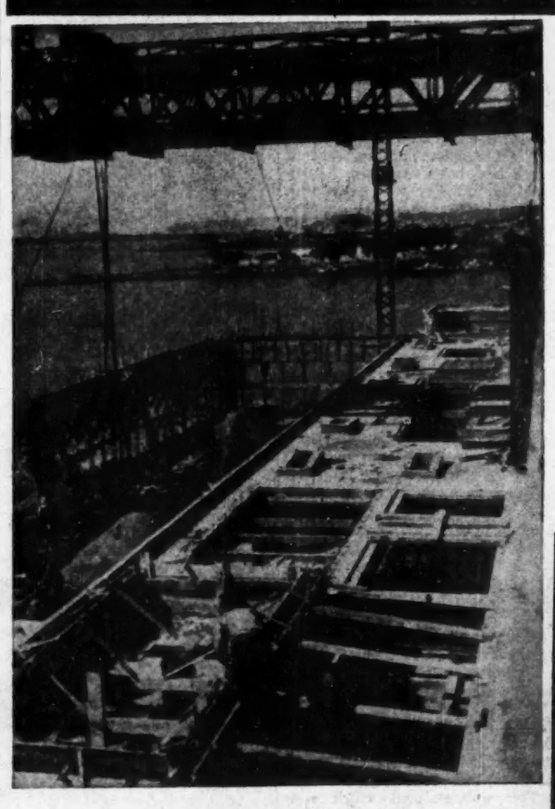
HIGHWAYS



The East Lancashire Road, Lancashire, England.

Value of highway and airport contracts received $68 million.

HEAVY INDUSTRY



Power Station built for Electricity Authority of Cyprus.

Capacity 70,000 kw.

Heavy construction contracts total $124 million.

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Retailers End the Cracker Barrel Era

(Continued from page 57)

shopping area in Vancouver last year.

Ottawa, with its far-reaching National Capital Plan, offers a challenge to shopping centre builders. It's a fast growing city, but the planners want it to grow the right way.

The supporters of a giant new combined shopping and residential community think they've designed a centre that will not only grow with the city, but fit into the Capital Plan's architectural scheme.

The big Ottawa plan, backed by Carling Shopping Ltd., combines:

—A 30-acre multi-store shopping centre, built around a Simpsons-Sears department store.

—A 20-acre housing area, containing apartment buildings and 250 home lots.

—Dignified architecture designed to conform to the beauty plan for the capital.

The Ottawa real estate firm, Rhodes & Radcliff Ltd., is handling the entire development, which will be known as the Westwood Development Property. It is reported that the centre will include 30 to 40 retail stores, a supermarket and a drugstore.

Probably the most unusual siting ever picked for two huge shopping centres is in eastern Toronto: right across the street from each other.

The first section of a $2-million, 40-acre centre was opened in December by Monarch Mortgage & Investment Ltd. It includes a food market, Brewers Retail Store and 13 others.

Right across the way, Principal Investments Ltd., Canada's largest sponsor of shopping centres, is building a $3.5 million, 31-store centre.

Will they bleed each other to death?

Not at all, say the backers. In fact they're expected to draw business to each other and create an enormous regional shopping area that can handle 4,500 cars altogether.

The idea behind one new Toronto-area centre will borrow from the past for its motif. The $5-million Cloverdale Regional Market Centre has been designed "to have very much the same character as the old market places of Europe, which are not just shopping centres but points of community interest and activity," says E. G. Faludi, the centre's planner.

Cloverdale, in Etobicoke Township near a main highway junction, won't have "strings of shops running along one or two sides of a vast desert of concrete for the parking area," he says.

The new centre — including about 40 stores—will have a unitized shopping area in the centre of a parking space for 4,000 cars.

The buildings in the centre will be a sort of department store without a roof. The customer will have a short walk from store to store, which will face each other across a mall of grass. Paths will be roofed, and islands of green grass will break up the parking lots.

Cloverdale's builders foresee a market of 100,000 for the area, spending about $100 millions a year on family needs.

Every new shopping centre gives itself a title. Lawrence Plaza, which opened in Toronto late last year, calls itself the "most complete."

The $4-million project has 40 stores, more than 1,200 ft. of frontage, parking for 2,000 cars, floodlighting, outdoor music, public restrooms, supervised playgrounds, promenades, central heating, community bulletin board, free express bus service, a 300-seat restaurant, a hairdresser, barber, dry cleaner, florist, shoe repairman and two banks.

It took Principal Investments Ltd. two years to build the 20-acre centre.

Other important centres in the wind:

—South Hull, Que., residential and commercial centre planned by Louis Gendron Ltd.

—Ottawa centre planned by Principal Investments.

—Eastview, an Ottawa suburb, may have centre planned by Kelidor Corp., of Three Rivers.

—Port Credit, Ont., centre planned by Rome Saracini Ltd.

—Brantford, Ont., supermarket, 19 acres, planned by Loblaws Ltd.

Simpsons-Sears Ltd., with its $22-million retail development program, has been a tremendous force in Canadian retail building. The firm, little more than a year old, soon will have stores, mail order depots and other outlets reaching from Atlantic to Pacific.

At the moment the Simpsons-Sears empire shapes up this way:

Stores opening this year: Peterborough, Nanaimo, Hamilton, Sarnia, Burnaby and possibly Port Arthur. (Moose Jaw is a likelihood this year too.)

Stores due to open next year: Ottawa and Saint John, N.B.

Most of these stores follow Simpsons-Sears' own "package" scheme, in which the department store is the nucleus of a planned shopping centre well removed from downtown congestion.

Under this system, Simpsons-Sears buys all the land and resells it to the other store operators on conditional terms, regarding upkeep, snow removal, additional construction.

Saint John, Peterborough, Sarnia and Port Arthur will follow the pattern closely. In Hamilton and Ottawa, Simpsons-Sears will own its own land and parking area but will co-operate with an independent centre.

Moose Jaw, it's reported, will be Simpsons-Sears, first lease-type store, located right downtown. Simpsons-Sears reportedly will have it built, then occupy it under long-lease conditions.

Most of the stores will be the Class "B" type of store—smaller but complete department stores —patterned after Sears Roebuck stores in the U. S.

The stores at Burnaby, Ottawa and Hamilton, however, will be Class "A" types, large modern department stores.

Nanaimo's store will be a smaller development, near the mainland ferry pier, in conjunction with Canada Safeway Ltd.

None of these stores, conforming to the successful Sears Roebuck pattern, will be more than two stories high. To expand, they'll move out, not up.

Experience has shown the firm that this design cuts costs, since it saves more expensive vertical movement of goods and customers, via escalators and elevators.

Under the Simpsons-Sears distribution system, its retail stores will be supplied from the mail order depots. Thus, the company is also building additions to its depots at Halifax, Toronto and Regina.

The big downtown department stores are not lying down while the shopping centres advance. They're fighting for customers, battling the modern suburbanite's tendency to do his shopping near home.

Simpsons Ltd.'s $5-million modernization in Montreal is a good example of department store strategy.

The investment will enable Simpsons Montreal to triple its customer traffic, in lift facilities and on the selling floors.

Plans call for new lighting, a bank of escalators that can move 8,000 shoppers an hour in both directions, and a new bank of six elevators. That's for customer comfort and ease.

For customer convenience: a bigger coffee shop, a larger hospital and first-aid centre, a speedier phone order department.

The heaviest enemy the downtown store must fight is the parking problem. Moreover it's a universal headache for retailers. It happens to one main reason for the amazing success of shopping centres.

But some department stores aren't taking that problem at its face value either.

Casting an eye at surburban competition (notably Simpsons-Sears in Burnaby) T. Eaton Co. is building a $600,000 garage in downtown Vancouver just for customers' cars.

Many Canadian cities can look forward to similar garages, if the trend of competition continues, the experts suggest.

The Eaton garage, now under construction, is designed to operate with a minimum of supervision. Motorists drive in, get a tag with a space number and a floor color. Each floor in the non-pillared building will have its distinctive color so the motorists won't have trouble finding their cars again.

He'll drive to his designated floor by a circular driveway with only a 2% grade, and park at the assigned space. Another circular driveway leads out.

Lower levels of the building will be used as waiting space for cars not yet parked, thus preventing tie-ups in the streets. The garage is 260 ft. long, 160 ft. wide, situated right next door to the new Eaton's Vancouver store.

Eaton's isn't letting the valuable Maritimes business slip through its fingers either. Canada's biggest retailer is building a 55,000 sq. ft. three-story store at Charlottetown, P.E.I. Eaton's today has 57 stores in all 10 provinces, in addition to mail order depots and other outlets.

Canada's big retail war is an expensive proposition. In the long run, however, everybody will win. The construction industry, for one, can't lose.

Retail Building Hits New Peak

Capital Investment for Construction ($ Mill.)

	Chain	Indep.	Dept. Stores
1947	11.3	30.0	5.0
1948	16.1	45.8	5.6
1949	19.1	56.5	9.1
1950	31.0	63.6	2.6
1951	24.0	52.5	5.1
1952	16.2	37.2	3.7
1953	36.0	78.6	19.5

Here's Outlook For Defense Construction

OTTAWA (Staff) — The defense departments will have about as much money to spend on construction projects in the coming year as they spent last year. This means a good deal less than their estimates for 1953-54; but they have not spent anything like all their appropriations in the present year.

The amounts listed in the published estimates for new construction by the three armed services are:

Navy: $18 millions
Army: $53 millions
Air Force: $107 millions

Some change of emphasis is expected in the construction programs. More will go for married quarters in the coming year. Last year was a slack one on this part of the program. The most urgent needs had been met; the house-building industry was busy with civilian housing, an the services took a back place. In the coming year they are hoping to catch up a bit and get a good many new married quarters.

Some of the air force expenditures will be going for new runways, which are contracted through the Department of Transport. This too may be a rather higher proportion of the total than it was last year.

The Army, whose construction expenditures fell farthest off from their estimates last year, has major projects for the development of its home stations. There is for example a big program at London, Ont., for replacing old temporary structures with permanent buildings. There is the new camp Gagetown in New Brunswick, where roads and utilities will be installed this summer, and a start may be made on the construction of buildings.

Defense Construction Ltd. may be spending less than last year, though R. G. Johnson, president of D.C.L., told the Construction Association that he did not expect its expenditures to be "far short" of last year.

The uncompleted work now under contract to D.C.L. amounts to about $40 millions, which is lower than at the same time last year.

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A bright new era of industrial development is starting in the Pacific Northwest, now that the region has an assured supply of oil. Completion of the 718-mile Trans Mountain Oil Pipe Line is being implemented in British Columbia and Washington by the extensive construction of petroleum processing facilities.
Among the refineries which now or upon completion will have available Alberta crude oil from Trans Mountain or its U. S. lateral are:
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- General Petroleum Corporation, Socony-Vacuum's western affiliate, 35,000 barrels-per-day refinery at Ferndale.
- Shell Oil Company's 50,000 barrels-per-day refinery at Anacortes.
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Halifax Bridge Saga

Work has started on the first of two main 320-ft. towers of the Halifax-Dartmouth Bridge. A powerful "Halcrane" of the Halifax Shipyards Ltd. is lifting a section of the first steel into position atop one of the piers that support the tower on the Dartmouth side of the harbor.

32 Tons of Paint, Plus Indian Curse

The second longest suspension bridge in the Commonwealth, the so-far unnamed structure that will span the harbor gap between Halifax and Dartmouth, is growing at a rapid pace as contractors race with the November, 1954, deadline for completion of construction.

The longest suspended harbor bridge in the Commonwealth is the Lion's Gate Bridge at Vancouver, and this Halifax-Dartmouth span will be similar in many details to the West Coast bridge. There's an added fillip to the story of this new East Coast bridge, however. There's a curse on it.

The story goes that an Indian chief dwelt with his tribe on the Dartmouth side of the Harbor many moons ago. He suspected his wife of something less than marital fidelity, followed her one summer's night. When she launched her little canoe in the harbor's waters, he followed close behind in the royal barge. When he saw her transfer from her own canoe to that of a Naval officer from the Halifax shore, he blew his top, and in what must surely have been one of Canada's earliest naval engagements, he assailed the enemy and scalped his squaw and her lover. Then he stood up in his canoe—no mean feat—and cursed any future union between the two sides of the harbor. Three bridges would be built across the harbor, he predicted. The first, he said, would collapse. It did in 1891. The second, he said, would be destroyed by a great storm. As a matter of record, the second bridge across the harbor was swept away by a heavy gale on July 23, 1893.

The third bridge, and that's what they're constructing here now, would collapse with a great loss of life, the Chief predicted.

Undaunted by the ancient curse, which some say was authored after the loss of the first two bridges, the Halifax-Dartmouth Bridge Commission, representing the Province of Nova Scotia, City and County of Halifax and the Town of Dartmouth, is proceeding with plans for the opening of the bridge to traffic late this year.

Work started this week on the erection of the first of the two 320-ft. steel towers — 100 ft. higher than Citadel Hill — that will support the suspended portions of the bridge.

Between the towers, one in the dockyard below North Street in Halifax, and one more than 500 ft. from the Dartmouth shore will be the main span of the mile-long bridge. This 1,447-ft. span will be, next to Vancouver's Lion's Gate span, the longest of its kind in the Commonwealth. On each end of the main span will be a 526-ft. side suspension span, making the total suspended length 2,500 ft. The supported spans, 12 on the Dartmouth side and four on the Halifax side, together with the approach plazas will bring the total length of the bridge to 5,319 ft. — just 39 ft. more than a mile.

The average clearance of the main span will be 165 ft. above harbor, but this will, of course, vary with the tide. Depending on temperature and traffic load, the bridge may actually rise about three feet above its normal height, or sag as much as five feet below it.

The two main cables, one foot, one and one-half inches, in diameter, will contain enough wire to stretch from Halifax to Vancouver and part way back. From each cable will hang 72 wire ropes that will support the weight of the suspended spans — 9,988 tons of it, including the paint.

"Most people laugh when I bring the paint into it," Alex Scott, the resident engineer in charge of construction said some time ago, "they forget that the 5,000 gallons of paint necessary to paint the bridge will make it about 32 tons heavier."

After the second main tower, on the Halifax side, is completed, the job of stringing the giant steel suspension cables is expected to get under way in late July or early August.

Contractors for the bridge include Foundation Maritime Ltd. of Halifax — construction of bridge piers; MacDonald Construction Company of Halifax — plazas and approaches; Dominion Bridge Co., with the Dosco-operated Canadian Bridge Co. associated — superstructure.

The total expenditure to date has been somewhere in the vicinity of $6 millions — it was $5,458,914 early in January — and the estimated total cost, first set at $8 millions has now risen to $10,071,668. Increased steel prices are blamed for the climbing cost. The $10 million figure does not include additional costs which may result from the escalator clauses in the contract of the Dominion Bridge Company.

The Province of Nova Scotia did not put up any money for the bridge construction, but guarantees any operating deficit. The province may recover 25% of any such deficit from the City of Halifax; 10% from the Town of Dartmouth, and 5% from the County of Halifax.

Bridge traffic is expected to reach 1,500,000 vehicles a year at the start with about four million passengers a year in motor cars, trolleys or buses.

The Commission has received Public Utilities Board approval of a 40c toll for cars and drivers. Car passengers would pay five cents. The first year's revenue should reach $900,000, according to present estimates, leaving a modest operating profit.

Modest, too, is the controversy over a name for the bridge. So far it has been simply "The Bridge" or the "Halifax-Dartmouth Bridge." There was a big run on "King George VI Bridge" as name a little while ago, but that seems to have faded away. It won't be the Queen Elizabeth Bridge — there's already a Queen Elizabeth High School. Proponents of the "Angus L. Macdonald Bridge" have given way to the more aggressive plan to call the causeway between the mainland and Cape Breton Island the "Macdonald Memorial Causeway" or some such fitting tribute to the province's Premier, and the proposal that it be called the "Atlantic Gateway Bridge" met with little or no popular approval.

So, as the bridge which was started on Jan. 19, 1952, nears its completion date, three questions remain to be answered by Harold J. Egan, the Bridge Commission Chairman:

1.—"What will the bridge be called?"

2.—"What transit system will cross the bridge — buses or the trolley coaches operated by the Nova Scotia Light and Power Company in Halifax?"

3.—"What color will the bridge be painted?"

House Near Airport Won't Lose Cash Value

Residential values are not adversely affected by proximity to municipal airports, finds an expert in an article in the January issue of the Appraisal Journal.

The U.S. study is of interest to residents in some Canadian centres where airports and residential areas are fairly close together, and where builders are studying the possibility of developing land near outlying airports.

Herman O. Walther, real estate analyst, investigated properties lying within a mile of Chicago's Midway Airport in which sales prices, number of transactions, volume of new construction were available from 1940 to 1952. He compared the same factors in two comparable areas outside the airport's influence.

Further studies have been made at municipal airports at Los Angeles, Denver, Dallas, New York, Newark, and other centres. They point to the same conclusion.

High Tensile Steel Bolt Interesting Development

There are four main ways of fastening structural steel together. They are: riveting, welding, bolting, and one that is being relied on in an increasing number of instances: the use of high tensile steel bolts.

The two steel members being fastened are actually clamped together in this last method. The joint does not slip because the bolt is thick enough and strong enough to stand the weight of the load which would ordinarily tend to shear it off.

The two surfaces are clamped together so firmly that they do not slip. Only if the load were so great that they did begin to slip would the load make any difference to the tension in the bolt, or call upon its bearing or shearing values.

A ¾-in. diameter bolt may be tightened with a wrench till there is 2½ tons tension in the bolt.

On the job, it is important to be able to measure this tension or estimate it with reasonable accuracy, without too much trouble. Engineers are tackling this by calibrating the power wrenches used.

Calibration of the air-driven power wrenches is a somewhat complex business, but is being tackled in a new way by the Steel Co. of Canada. They are developing a portable apparatus to be used on the construction site.

Two men can, with a moderate amount of training, bolt more connections than a four-man riveting crew can handle. Skilled riveters have been increasingly difficult to get, in recent years, too. There is only about half the noise (hospitals favor bolting for additions).

The Canadian Standards Association has incorporated specifications for structural joints using high-tensile bolts in its new code for steel structures for buildings. The Canadian Institute of Steel Construction has a committee which is working with bolt manufacturers on a code to regulate field of control of bolt tightness and inspection of this operation with calibrated impact wrenches.

Fredericton Police, Firemen Wages Hiked

FREDERICTON — A compromise $100 annual pay hike for members of Fredericton's police and fire departments was approved at the first meeting of the incoming city council here recently. The council turned down separate requests of the departments for a straight $200 per year increase. A second demand of the fireman for a reduction of their working hours from 72 to 56 hours a week was granted.

Under the new agreements annual salaries for police constables will range from $2,580 to $2,980; and for firemen from $2,580 to $2,950.

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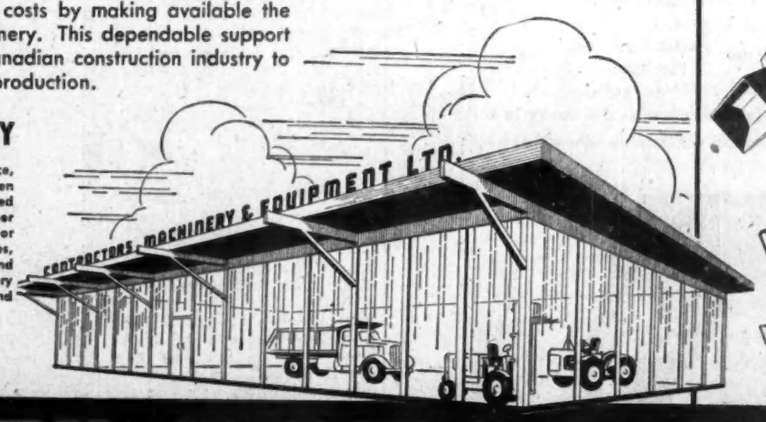

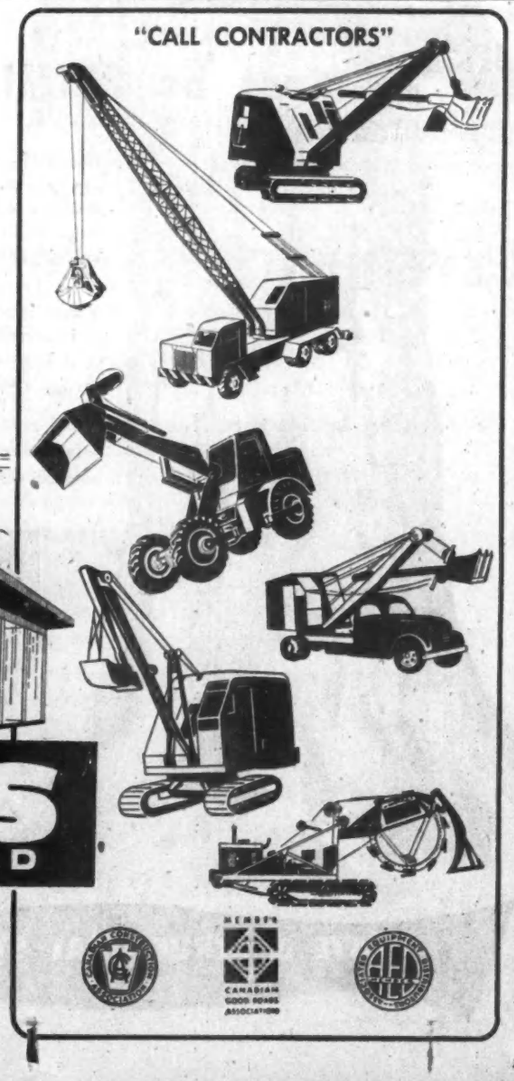

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From Drafting Boards To Model Town

They're Betting $200 Millions On Farmland's Future

A whole new community is rising on farmland northeast of Toronto — a planned town with an expected eventual population of 35,000-40,000, requiring an investment of $200 millions or more.

It's a unique development for Canada in its scope and its size.

The first plant in the area was completed in June, 1951, the first house was started just nine months ago. Yet within a year, it's expected that the population will have jumped to 6,000.

Already seven shiny new plants are in operation, two more are under construction and at least two more plan to start building right away.

Two hundred families have moved in to their new homes, and more are moving in at the rate of 10 families a week. The community's first elementary school is being built in time for the fall term — the steel framework is up now.

Second phase of a big sewage plant has just been started, a $2 million apartment development will have first units ready in April, and work is now under way on a supermarket, the first unit in a large community shopping centre scheduled for completion by fall.

Five-Year Study

Known as Don Mills, the new community is actually within the limits of Greater Toronto. Behind the vast new project is Don Mills Developments Ltd., of which E. P. Taylor is chairman and Karl C. Fraser is president.

Actually, Don Mills will be the end product of more than five years' study, consultation and community research. John Layng, architect and town planner of the city of Toronto, laid out the original plan and provided the first general concept of the new community. The pattern he roughed in has given guidance in bringing the project to today's clearly defined progressive program.

Active direction of all phases of creating a city "from the ground up" is the responsibility of President Fraser. Before he had the satisfaction of seeing the first sod turned, he had traveled to dozens of cities in the U. S. to personally study the complexities of civic development and had buttressed decisions about building Don Mills with on-the-site studies and consultations with the continent's leading community developers.

Members of the Community Builders' Panel, Urban Land Institute, Washington, D. C., spent several days on the site and submitted a comprehensive report covering most phases of development. This followed two previous presentations of the plan to the panel in Seattle and Cincinnati.

Kenneth C. Welch of Grand Rapids, Mich., an international authority on shopping centres, frequently inspected the farmland area where sod was turned last week on the convenience shopping centre which is destined to become an $8 million two-level, air-conditioned, contemporary "show case" for some 70 merchants, supermarkets, banks, offices and department stores. Welch has been design study consultant to John B. Parkin and Associates, Toronto architects for the shopping centre.

In final polishing of the over-all plan, constructive criticism and suggestions were sought from Sir William Holford, who is recognized as one of the world's outstanding authorities on civic development.

Keeping Rural Charm

Every effort has been made, and will be made, according to officials connected with the project, to retain rural charm while developing urban culture, comfort and convenience.

The townsite proper is gently rolling farm land straddling the western branch of the Don River and is bounded generally by the eastern branch and Woodbine Avenue on the east, the main line of the Canadian Pacific Railway on the south, Wilket Creek on the west, and York Mills Road on the north. These boundaries enclose about 3,000 acres.

To maintain rural characteristics, project planners had to think in terms of the smallest number of streets with substantial park and recreation space. To provide industrial land, with high return, provision had to be made for complete service and facilities. The shopping centre and community activities acreage was planned to be a pleasant, easily-accessible area to serve residents and to stimulate trade.

Don Mills has a scheduled program for the provision of public utilities, services and social amenities. Construction of homes followed first-phase construction of a $1,250,000 sewage treatment plant.

The first phase was to meet requirements of industries, already located in Don Mills, and a population of 4,000. Schwenger Construction Ltd. has completed this contract and has signed, within the past week, to proceed with the second phase. The completed plant will have 3,000,000 gallons per day design capacity.

Trunks and laterals, road, sidewalks, etc. for Don Mills will cost approximately $7-$8 millions. In May, last year, Ruscica Brothers Co. was awarded a $258,000 contract for four miles of sanitary sewers and water mains in addition to services for 531 houses. This work was confined to the northwest quadrant.

Original plans called for housing construction to progress in four annual phases, advancing from quadrant to quadrant in the four sections formed by Lawrence Ave. E. and Don Mills Road. Building contractors' urgent demands for space and popularity of the project with the public have resulted in the home-building program being radically revised.

This year, construction will be simultaneously extended to the other three quadrants. As evidence of the added impetus, a $282,000 contract has just been awarded to Ruscica Brothers for sanitary sewers, water mains and house services in the southwest quadrant and a $215,000 contract to Leaside Contracting Co., for similar utilities in the northeast quadrant.

Landscaped Homes

The stepped-up program is expected to result in over-all expenditures of $40 millions in Don Mills this year.

Contractors building in Don Mills submit all plans to company architects for guidance. No home is complete without landscaping and all have sodded lawns before the contractor leaves the site. Through use of variety in design, color and placing of the homes on the site, Don Mills Developments is avoiding regimented rows of homes in the community.

Most homes are on pleasant road "crescents" which eliminates dangerous intersections for children. All streets are to be paved and services, such as sewers, water and light are being put in as part of the project by the company. The industry and home buyer doesn't have to worry about waiting for the municipality to put them in.

Each quadrant will have at least one elementary school with generous playground areas. The school now under construction in the northwest quadrant will include an auditorium, a kitchen and other modern facilities.

Temporarily, the school will serve as a centre for community meetings, etc., but it is basically designed to encourage cultural development of the students and provide them with a place to stage plays, promote sports and all other student activities.

A collegiate, with adjoining athletic field, is scheduled for construction on the east side of Don Mills Rd., across from the shopping centre.

At the moment, a two-story farmhouse at the corner of Don Mills Rd. and Lawrence Ave. serves as post office, field office for King & Coons, the project's engineering consultants, and for the apartment builders; and as office for Dr. Melville Gooderham, Don Mills' first physician.

The whole plan has been designed to maintain property values, not only through design of the homes, but through location of the industries, planning of the roads, etc.

"Nuisance" industries are not acceptable — that is, those likely to produce noise, smells or smoke. Plant sites have to be large enough to provide that even with future expansion, only one half of the ground on which the plant is built will be taken up by the factory.

Here is a list of the industries now operating there or preparing to do so:

Operating: International Business Machines; Perfect Circle Co.; Barber-Greene Canada Ltd.; Hugh C. MacLean Publications; Kawneer Canada Ltd.; Hallicrafters Canada Ltd.; Sherriff's Ltd.

Under construction: Philco Corp. of Canada; Upjohn Co.

About to start: Canadian Controllers Ltd. and Dominion Rubber Co.

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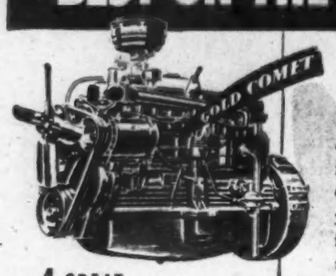

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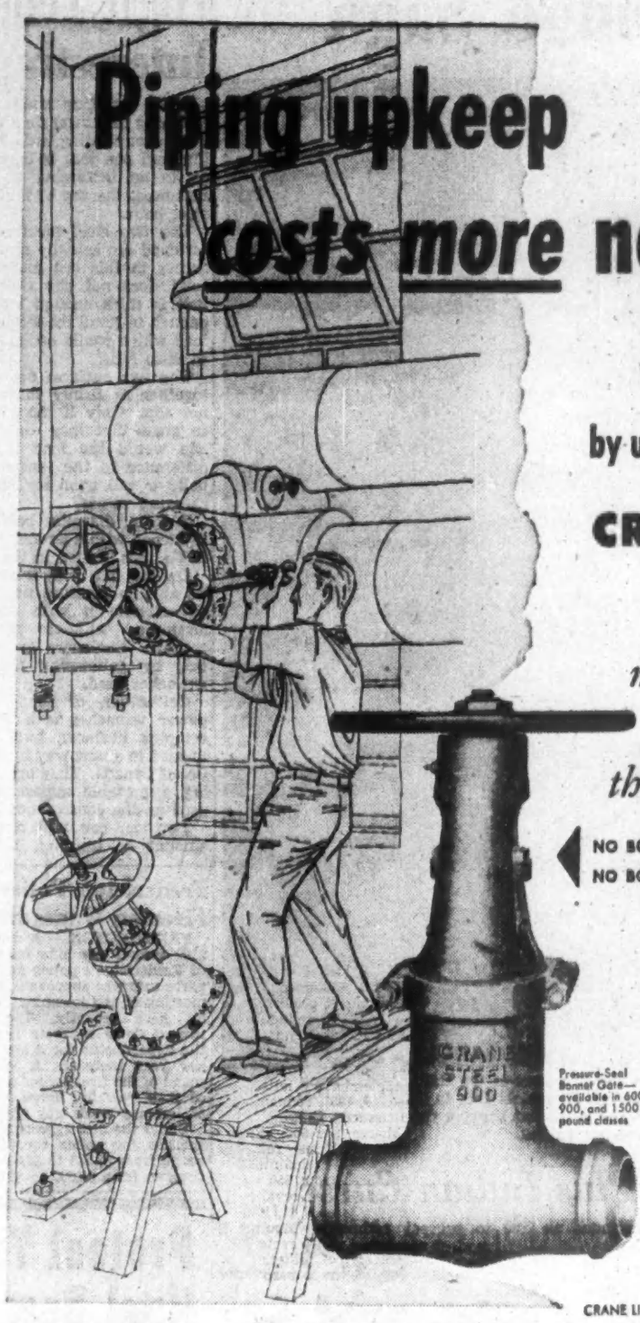

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Land Costs Show Wide Variation

Here's The Picture For Various Towns, Cities

What does land cost across the country, and how much of it is left for building? A survey by Central Mortgage & Housing Corp. completed in late 1953 gives estimates for different communities from the standpoint of residential building particularly.

Fully serviced land is defined as having sewer and water. Partially serviced land has sewer or water but not both, and unserviced land has neither.

Here are land prices and degree of present development as indicated by the survey:

Locality:	Area (Acres)	Ratio of Vacant to Total Acreage %	Price (Per Ft. Frontage) Serviced $	Partially Serviced $	Unserviced $
ATLANTIC REGION					
St. John's	3,161	13.1	39	35	30
Fringe Area	....	...	NA	NA	27
Halifax	4,403	2.7	45	NA	36
Dartmouth	1,726	81.0	NS	NS	NS
Sydney	3,731	32.5	12½	7¼	5
Saint John	8,704	8.7	15¼	NA	NS
Lancaster City	....	...	8	8	8
Simonds Parish	...	...	6	NA	5
QUEBEC REGION					
Cap-de-la-Madeleine	4,275	53.8	12	35	NS
Montreal	32,256	17.4	12½	NA	1¼
Baie d'Urfe	....	...	NA	30	20½
Beaconsfield	....	...	10	5	4
Cote-St. Luc	....	...	NA	25	18
Dorval	2,560	16.6	17	Nil	23
Greenfield Park	736	...	9	7¼	1
Hampstead	499	5.0	90	NA	62½
Jacques Cartier	8,960	37.9	NA	12	6
L'Abord-a-Plouffe	1,235	84.5	NA	8	1
Lachine	2,995	12.1	25	NA	8½
Lasalle	4,672	80.0	27½	NA	11
Laval-des-Rapides	2,302	26.8	15	NA	7
LeMoyne	230	13.0	5½	NA	3½
Longueuil	730	6.8	20	NA	8½
Mackayville	1,203	52.4	NA	7½	4
Montreal E.	3,059	1.0	18	NA	NA
Montreal N.	2,688	60.0	3½	NA	2¼
Montreal S.	429	9.6	16	NA	12
Montreal W.	403	5.5	27	NA	7½
Mont Royal	1,728	10.1	75	NA	16
Outremont	973	2.4	80	NA	37½
Pointe Claire	2,054	34.3	22½	NA	12½
Pointe-aux-Trembles	4,198	9.2	14	7	2¼
Pont-Viau	979	44.9	10½	NA	6½
Preville	....	...	9½	NS	NS
Ste-Anne-de-Bellevue	166	0.6	10	NA	NA
Ste-Dorothee	....	...	NA	13	7
St-Lambert	1,190	27.6	23	NA	6½
St-Laurent	2,611	15.3	36	NA	25
St-Martin	....	...	NA	NA	7½
St-Michel	1,933	5.7	12¼	NA	5
St-Pierre	474	14.8	25	NA	9½
Ile Bizard	....	...	NA	NA	½
Ste-Rose	742	51.5	12½	NA	9
Ste-Rose E.	....	...	NA	NA	5½
Ste-Rose W.	....	...	NA	NA	6½
St-Vincent-de-Paul	....	...	12½	NA	1½
Verdun	1,427	2.6	22½	NA	NA
Westmount	979	1.9	125	NA	NA
Quebec City	5,754	14.2	34½	NA	21
Beauport	954	14.7	14½	NA	4½
Beauport W.	....	...	NA	7	7
Charlesbourg	2,266	88.3	NA	12½	6
Charlesbourg E.	....	...	NA	10½	6½
Charny	1,856	89.2	12	6	5½
Chateau d'Eau	....	...	NA	NS	17
Courville	....	...	11	NA	6
Gifford	2,330	35.2	15	NA	9
L'Ancienne-Lorette	....	...	NA	10	4½
La Petite Riviere	....	...	NA	12	3
Lauzon	5,920	1.7	14	NA	2¼
Levis	2,265	1.1	16	9	NA
Loretteville	1,466	16.4	NA	8	NA
Montmorency	138	8.7	14	NA	NA
Notre Dame	2,541	2.8	NA	15	NA
Quebec W.	1,158	14.2	17	11½	5¼
St-Ambroise	....	...	15	15	1
St-Charles	....	...	NA	8½	12
St-David	....	...	NA	NA	1½
St-Felix	....	...	6½	NA	6
Ste-Foy	7,763	...	30	25	8½
St-Michel Archange	....	...	NA	NA	NA
St-Nicolas	....	...	NA	7	4
St-Romuald	....	...	25	7	8
St-Telesphore	....	...	NA	NA	1
Ste-Therese	....	...	NA	7	5½
Sillery	1,760	0.7	40	NA	16
Villeneuve	....	...	13	13	8½
Sherbrooke	6,739	...	30½	22½	11
Three Rivers	3,750	13.7	20	14	15
ONTARIO REGION					
Brantford	3,290	...	13	NA	9
Brantford Twp.	....	...	NA	13½	10
Hamilton	14,061	0.4	24	16	NS
Ancaster Twp.	....	...	....	....	....
Barton Twp.	....	...	....	....	....
Burlington	666	12.6	25	NA	20
Dundas	781	15.2	24	NA	24
Flamborough E.	....	...	NA	22	NS
Flamborough W.	....	...	....	....	....
Nelson Twp.	....	...	....	....	....
Saltfleet Twp.	....	...	....	....	....
Stoney Creek	....	...	20	NA	NS
Waterdown	....	...	NA	NS	NS
Kingston	3,021	23.3	50	40	15
Kitchener	3,483	39.0	8¼	12	12
London	6,812	1.5	26	22	10
London Twp.	....	...	15	20	20
Westminster Twp.	....	...	NA	20	NA
Stamford Twp.	....	...	20	13	6
Oshawa	13,606	4.6	12	NA	6
Peterborough	3,974	14.4	6	NA	NS
St. Catharines	3,738	8.8	21½	25	NS
Grantham Twp.	....	...	20	15	NS
Merritton	....	...	NA	NA	NS
Sarnia	11,366	36.1	NA	25	3½
Sault St. Marie	5,510	18.4	17½	7½	NS
Sudbury	2,797	3.4	42	NA	NS
Waterloo	2,963	18.2	13	10	3
Waterloo Twp.	....	...	NA	NA	NA
Windsor	9,510	...	22	NA	9
Lasalle	....	...	NA	NS	4
Ojibway	....	...	NA	NA	NS
Riverside	2,598	70.8	19½	15	NS
Sandwich E.	....	...	NS	9	3
Sandwich S.	....	...	NA	10	7
Sandwich W.	....	...	25	8	3
St. Clair Beach	....	...	NA	10	9
Tecumseh	1,299	8.0	NA	6	3
PRAIRIE REGION					
Fort William	8,038	24.3	16	3½	NS
Winnipeg	16,000	2.6	9	9	NS
Assiniboia	....	...	....	....	....
Charleswood	....	...	....	....	....
Fort Garry	....	...	17	15	4
Kildonan W.	....	...	NA	NA	28½
Kildonan E.	....	...	37	NA	NS
Kildonan N.	....	...	NA	6	6
Old Kildonan	....	...	NA	NA	NS
St. Vital	....	...	NA	8	8
Tuxedo	....	...	37½	NA	NS
Regina	12,301	5.8	12	NA	2½
Saskatoon	8,480	35.9	NA	NA	3
Calgary	25,370	23.6	NA	NA	NS
Bowness	....	...	NA	NA	NS
Forest Lawn	....	...	NA	NA	4
Shephard	....	...	....	....	....
Springbank	....	...	NA	NA	NS
Edmonton	25,939	42.2	49	20	15
Beverly	....	...	NA	NA	5
Jasper Place	4,032	49.8	NA	NA	8
BRITISH COLUMBIA					
Vancouver	27,968	8.7	32½	27¼	22¼
Burnaby	....	...	NA	14½	6¼
Coquitlam Mun.	....	...	NA	8½	2
Fraser Mills	....	...	NA	NA	NS
New Westminster	4,397	1.6	16½	10	8
North Vancouver	....	...	NA	14	2
North Vancouver (City)	2,131	41.5	21¼	18¼	15
Port Coquitlam	5,203	17.4	NA	6	NS
Richmond	....	...	NA	12	12
Surray	....	...	NA	10	6
University Area	....	...	50	40	25
West Vancouver	....	....	NA	35	NS
Unorganized	....	....	....	....	....
Port Moody	....	....	NA	6¼	NS
Victoria	4,640	...	NS	NA	NS
Central Saanich	....	....	NA	20	15
Esquimalt	....	...	....	....	....
Oak Bay	....	...	NS	NS	NS
Saanich	....	...	8	6½	NS

NA: Not available. NS: Not stated.

Company Reports

To assist readers in appraising and comparing company financial statements, The Financial Post has a uniform method of presenting corporation accounts. Variations from the companies' published reports are footnoted.

Finance

GREAT BRITAIN & CANADA INVESTMENT CORP. net profit of $262,965 for 1953 was 0.6% lower than 1952 net of $264,525.

Investments at year-end were valued at $8,975,974, compared with $9,181,080 a year earlier. A profit of $125,625 was realized on certain changes in investment holdings during the year, reports President W. A. Arbuckle.

At a total cost of $13,568, 130 preferred shares were redeemed. A dividend of $8.50 or the $5 preferred shares was paid Dec. 30, reducing accumulated arrears of dividends to $57 a share.

Balance sheet reflects changes confirmed by supplementary letters patent dated Dec. 13, 1953, reducing authorized and issued capital by 9,765 preferred shares, par $50, and 50,719 n.p.v. common shares; reinstating par value of the remaining 30,235 preferred shares from $50 to the original par of $100; and revaluing investments by a total of $1,511,750 to offset increase in par value of the 30,235 preferred shares. Directors have approved transfer of preferred stock redemption reserve to earned surplus.

INCOME ACCOUNT Years Ended Dec. 31:	1953	1952
Total income	$400,874	$395,335
Less: Gen. exp.	35,531	28,624
Taxes	2,358	2,186
Debent. int.	100,000	100,000
Net profit	262,985	264,525
Less: Pref. divd.	256,997	258,103
Surplus for year	5,988	6,422
Times Deb. Int. Earned	3.65	3.67
Earnings per Share and Dividend Record:		
Preferred	$8.70	$8.71
Paid	8.50	8.50
Common	0.37	0.33

None paid on common.

Dividend arrears on the preference stock amounted to $57.00 at Dec. 31, 1953.

CONDENSED BALANCE SHEET As at Dec. 31:	1953	1952
Cash	$50,385	$48,697
Accts., etc., rec.	44,115	.....
Invest. (cost) after res.‡	7,422,013	8,941,369
Accr. revenue	66,017	69,755
Prep. chgs.	483	483
Total assets	7,583,513	9,060,304
Accts., tax. pay., etc.	36,688	25,230
Funded debt	2,500,000	2,500,000
Pref. red. res.	†	514,870
Capital stock	4,023,500	2,518,250
Surplus	1,023,325	501,954
‡Market value	8,975,974	9,181,080

†Transferred to earned surplus.

Pulp, Paper

GREAT LAKES PAPER CO. consolidated net profit of $2,973,068 for 1953 was 14.9% higher than 1952 unconsolidated net of $2,656,377.

Demand for newsprint supply continued strong throughout the year, enabling company to maintain maximum capacity operations, reports President W. Earl Rowe. Shipments totaled 157,993 tons.

Demand for company's production of unbleached sulphite dropped substantially, and shipments declined from 32,367 tons in 1952 to 22,384 tons in 1953.

Company sold for $450,000 its investment in shares of Northern Wood Preservers Ltd. in latter part of the year.

In September, the greater part of management operation was transferred to Fort William from Toronto, under supervision of C. J. Warwick Fox, vice-president and general manager.

CONSOL. INCOME ACCOUNT Years Ended Dec. 31:	1953 $	▲1952 $
Net sales	20,457,635	21,383,014
Net oper. profit	7,347,035	7,229,970
Less: Depreciation	47,626	54,338
Depreciation	1,243,375	1,305,390
Bond interest	129,721	143,864
Tax prov.	2,933,225	3,020,000
Net profits	2,973,088	2,656,377
Less: A & B divds.	284,095	284,272
Com. divds.	1,920,000	1,920,000
Surplus for year	768,993	452,105

*Does not include profit of $12,581 on disposal of investments in 1953, and loss on disposal and write-down of investments by $3,656 in 1952.

▲Not consolidated.

Times Bond Interest Earned:		
Before depr. & depl.	56.64	50.26
After depr. & depl.	46.69	40.46
Earnings per Share and Dividend Record:		
Class A & B	$17.95	$16.04
Cl. A: Paid	2.50	2.50
Cl. B: Paid	1.20	1.20
Common	2.24	1.93
Paid	1.20	1.60

CONDENSED CONS. BALANCE SHEET As at Dec. 31:	1953	*1952
Cash	$3,996,152	$1,460,684
Accts. rec.	2,252,669	2,221,643
Sh.-term trust notes	1,500,000	.....
Invent. & adv. woods oper.	7,134,107	8,557,972
Total curr. assets	14,882,928	12,240,299
Ins. dep.§	.....	237,233
Misc. assets	237,237	240,306
Investments	.....	1,350,000
Fixed assets*	7,072,065	7,650,553
Timber limits*	2,918,315	2,404,180
Total assets	25,210,545	24,122,571
Accts. & tax. pay.	3,347,349	2,469,724
Divd. pay.	480,000	480,000
Share purchase	148,469	149,052
Bd. int. & s.f.	435,496	434,604
Total curr. liab.	4,411,224	3,533,380
Funded debt	3,141,000	3,583,000
Share pur.	420,000	560,000
Conting. res.	977,311	977,311
Capital stock	6,123,720	6,123,720
Surplus	10,136,290	9,353,160
*After depr. of	15,942,334	14,527,474
▲After depl. of	2,117,251	1,892,115

*Not consolidated.

§Incl. in curr. assets in co's report.

Working capital	10,471,704	8,716,919

Graphic Arts

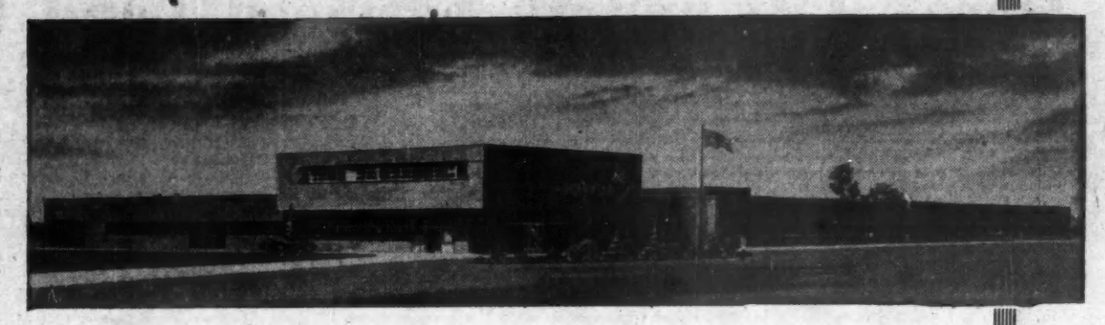
BRITISH AMERICAN BANK NOTE CO., Ottawa, net profit of $193,961 for 1953 was 27.4% lower than 1952 net of $267,246.

Reduction in sales was due principally to substantial decrease in deliveries of bank notes to the Bank of Canada, reports President A. Murray Vaughan. A new 1954 series of bank notes has been designed and is now in production, and these notes will be issued by the Bank of Canada later this year.

INCOME ACCOUNT Years Ended Dec. 31:	1953	1952
Net earnings	$536,450	$748,071
Less: Deprec.	158,602	172,138
Debent. int.	7,887	10,587
Income tax	175,000	298,100
Net profit	193,961	267,246
Less. Divds.	150,000	120,000
Surplus for year	43,961	147,246
Earnings per Share and Dividend Record:		
Common	$1.29	$1.78
Paid	1.00	0.80

CONDENSED BALANCE SHEET As at Dec. 31:	1953	1952
Cash	$42,661	$74,426
Accts. rec.	100,377	88,818
Due fr empl.	29,186	28,907
Investments*	734,265	874,333
Inventories	314,850	338,678
Total curr. assets	1,211,339	1,197,564
Misc. assets	16,271	18,734
Fixed assets†	1,171,500	1,287,198
Total assets	2,399,110	2,503,496
Total curr. liab.	139,100	197,456
Funded debt	170,000	260,000
General reserve	100,000	100,000
Capital stock	300,000	300,000
Surplus	1,690,001	1,646,040
†After depr. of	1,853,284	1,700,128
*Market value	685,104	636,011
Working capital	1,072,239	1,000,108

▶ New Electronics Plant of RCA Victor Co. at Prescott, Ont.



▶ Site selection, layout, design and supervision of construction

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Private Builders Offer Houses At $58 Mo. Rent

Two-bedroom houses to rent for $58—that's the offer of private builders if they can get enough mortgage money.

A demonstration double house of smart, modern architectural design has been erected by Toronto Metropolitan Home Builders' Association. Suppliers and contractors submitted bids showing what they would charge if the project was carried out on a large scale—500 units or more.

In mass production the houses would be built in rows of eight or ten. They could be set at angles to one another in a landscaped setting if the subdivision lent itself to this arrangement.

More than 5,000 people out of 15,000 who came to look at the houses during demonstration period of 64 hours said they would like to rent these private-enterprise houses if they become available.

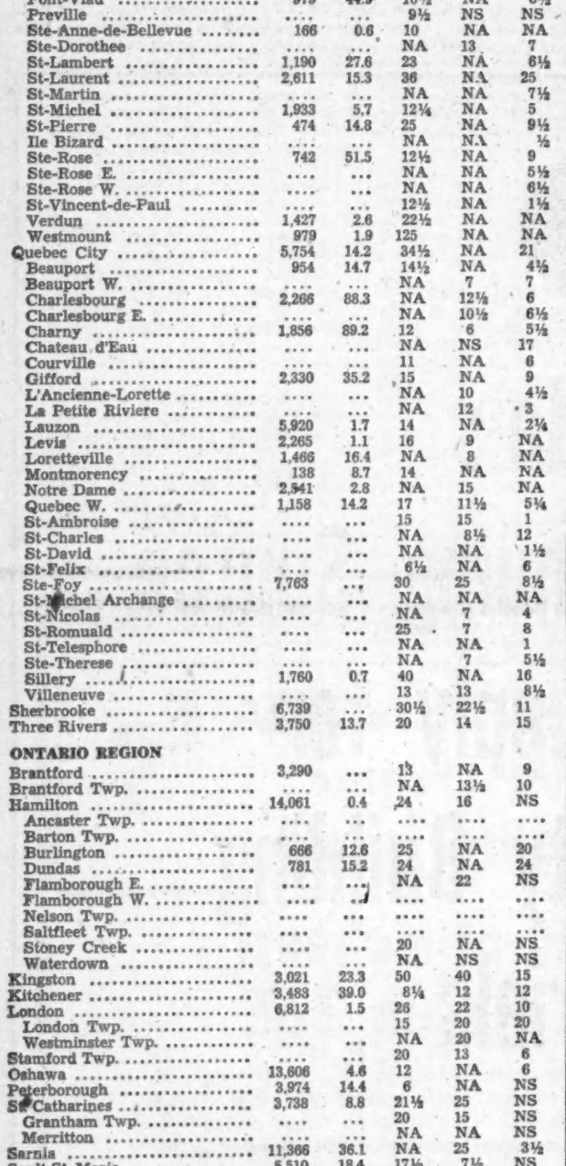
Each house has two bedrooms, upstairs, along with a three-piece bathroom and short hall. Downstairs, the living room is 13 ft. by 14 ft. and dining alcove seven ft. six in. by eight ft. The kitchen is fitted with modern cabinets.

There is a warm-air furnace in the full-sized basement. Outdoor play space is also provided.

Tenant provides his own fuel and own range and refrigerator.

The association figures cost per unit at $7,300 plus a suggested completely serviced land cost of $1,000 to make a total of $8,300. This could be amortized, it suggests, by a 30-year 3¾% mortgage of $6,470 plus land rental-purchase of $1,000 at 3¾% to leave a builder's equity of $830. (These mortgage terms would be possible at present only if the buildings were owned and operated by an approved limited-dividend corporation.)

The rental basis is calculated on a monthly mortgage payment of $29.83; taxes $10; maintenance $4.76; vacancy and bad debts $2.50; management, overhead and profit $6.30; land purchase $4.61. This would make a monthly rental of $58. The figure is accurate, the association states, but conditional on the Government making completely serviced land available at a price of $1,000 per unit under a rental purchase system and mortgage funds being obtainable at the rates quoted.



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Here's City-by-City Serviced Land Outlook

Shortage of serviced land has been one of the big headaches in residential construction. The servicing of land with sewer and water is in itself a form of construction, and the drive to provide more serviced land will provide more business for many contractors and engineers. Here is a survey of outlook for serviced land in Canadian municipalities, in the form of a questionnaire circulated by Central Mortgage & Housing Corp. to its field offices. The survey was made in 1953, and covered both 1953 and 1954 outlook. Availability of land in 1953 was different from the 1954 outlook in only one case, and is not included in the data published here. (Sault Ste. Marie expected a land shortage in 1954, but not in 1953).

Answers to the questions simplify the situation somewhat in many cases. There may be many lots available in a locality but they may be scattered, expensive, or of poor quality and of little use to the project builder. Opinions of the leading three builders may thus differ from some smaller builders.

Policy of municipalities on housing may not be official, of course. And different councillors or aldermen may hold contrary views.

Locality	(1) BUILDERS: Will activities of project bldrs. be limited by availability of serviced land in 1954?	(1) BUILDERS: What do leading three builders think of availability of serviced land?	(1) BUILDERS: Will their activities be limited by lack of serviced land, and if yes, to what extent?	(2) MUNICIPALITIES: What effect has lack of mortgage financing, particularly forward commitments, on development of serviced land?	(2) MUNICIPALITIES: Is municipality interested in additional residential construction?	(2) MUNICIPALITIES: Is it favorable to land assembly under Section 35?	Remarks
ATLANTIC REGION							
St. John's	No	Enough available	No	No lack of funds	Yes	Yes	Land shortage probable in 1955
Fringe Area	No	Use raw land	NA	No lack of funds	NA	NA	City interested in fringe area for land assembly
Halifax	No	Serious in 1956	Yes	No lack of funds	Yes, within reason	Yes, Re: Section 12	Geography limits available land
Dartmouth	No	Enough for now	No	None	Yes	No interest	—
Sydney	Yes	In short supply	Large projects impossible	Not known	Yes	Yes	No great demand exists
Saint John	Yes	In short supply	Activity very limited	No lack of funds	Yes	Yes	City has applied for Section 35 land assembly
Lancaster City	Yes	Fair supply	Not in 1953	None	Yes	Not at present	Large areas easily serviced
Simonds Parish	NS	Fair supply	Not in 1953	None	Yes	Yes	Industrial area — developing slowly
QUEBEC REGION							
Cap-de-la-Madeleine	No	Good supply	No	None	Yes	Yes	—
Montreal	No	Enough for now	No	None	Yes	Yes	City provides services as needed
Baie d'Urfe	No	All land unserviced	NA	None	No	No	Town discourages large developments
Beaconsfield	NS	In short supply	Not in 1953	None	Yes	Yes	No sewer system in municipality
Cote-St. Luc	NS	In short supply	Activity very limited	None	Yes	No	Progress depends on services
Dorval	Yes	Very short supply	Volume cut 50%	None	Yes	Yes	1954 volume depends on new services
Greenfield Park	NS	In short supply	Depends on servicing	None	Yes	Probable	—
Hampstead	Yes	None available	Very much limited	None	Yes	No	Very independent administration
Jacques Cartier	No	No concern	No	None	Yes	Yes	Most building on raw land
L'Abord-a-Plouffe	NS	Use raw land	NA	None	Yes	Yes	Services would double volume
Lachine	Yes	Enough for now	Yes, in last half '53	None	Yes	Yes	Sewers not adequate for future needs
Lasalle	NS	Badly located	No	None	Yes	Yes	Most construction on raw land
Longueuil	No	Supply good	Only by 1955	None at present	Yes	Yes	Mortgage money becoming scarce
Mackayville	No	All land unserviced	NA	None	Yes	Yes	Most homes are owner built
Montreal E.	No	Enough available	No	None	Yes	No	Industrial nature discourages lending
Montreal N.	Yes	Adequate in 1953	No	None	Yes	No	Land serviced as fast as funds become available
Montreal S.	No	Available but costly	No	None	Yes	Yes	Land speculators retarding growth
Montreal W.	Yes	Few lots available	No further building	None	Yes	No	Only available land owned by farmers
Mont Royal	Yes	50 lots left	Severely in 1954	None	Yes	No	Lack of sewers hinder development
Outremont	Yes	No great concern	No	None	Yes	NS	Area nearly all built up
Pointe Claire	NS	Limited in late 1953	Not for the present	None	Yes	Yes	Land serviced as required
Pointe-aux-Trembles	NS	Little available	Volume cut 50%	None	Yes	Yes	Adequate raw land for expansion
Ste-Anne-de-Bellevue	NA	NA	NA	NA	NA	NA	Area completely built up
St-Lambert	Yes	In short supply	⅓ vol. drop from 52	None	Yes	Yes	Sewage disposal is main obstacle
St-Laurent	Yes	In short supply	Volume cut 50%	None	Yes	No	Available area held by speculator
St-Martin	No	Use raw land	No	None	Yes	Yes	Town plans developing 360 acres
St-Michel	Yes	In short supply	50% volume drop from 1951	None	Yes	Yes	Land development being planned
Ste-Rose	NS	Use raw land	No	None	Yes	Yes	Most local building by owners
Ste-Rose W.	No	Use raw land	No	Owner financing	No	No	Farms & cottages predominate in area
St-Vincent-de-Paul	Yes	In short supply	Yes, very markedly	None	Yes	Yes	Increasing use of raw land occurring
Verdun	NA	NA	NA	NA	NA	NA	City almost completely developed
Westmount	NA	NA	NA	NA	Yes	No	Only few high priced lots left
Quebec City	Yes	Available, high cost	Yes	None	Yes	Yes	High tax rates discourage building
Beauport	NA	No active builders	NA	NA	Yes	Yes	—
Beauport W.	NA	No active builders	NA	NA	Yes	No	—
Charlesbourg	Yes	In short supply	Yes, very markedly	L.I.s not active here	Yes	NA	Section 35 has not been considered
Charlesbourg E.	NA	No active builders	NA	L.I.s not active here	Yes	Yes	—
Charny	No	NS	NS	NS	Yes	No	—
Chateau d'Eau	NA	No active builder	NA	NA	Yes	No	Summer resort area
L'Ancienne-Lorette	NA	No active builder	NA	NA	Yes	No	Farming district
Le Petite Riviere	NA	No active builder	NA	NA	Yes	No	Large area zoned for industry only
Limoilou	NA	No active builder	NA	NA	Yes	Yes	—
Levis	No	No shortage	No	None	No	Yes	Building limited by lack of demand
Loretteville	NA	No active builder	NA	NA	Yes	No	—
Montmorency	No	NS	No	NS	No	Yes	—
Quebec W.	No	NS	No	NS	Yes	No	No lending institution active here
St-Ambroise	NA	No active builder	NA	NA	Yes	No	—
St-Felix	NA	No active builder	NA	NA	Yes	No	—
Ste-Foy	No	No shortage	No	None	Yes	Yes	Additional 300 lots being serviced
St-Michel Archange	NA	NA	NA	NA	NA	NA	Area houses an asylum
St-Nicolas	NA	No active builder	NA	NA	Yes	No	—
St-Romuald	NS	NS	NS	NS	Yes	No	Shortage of mortgage financing
St-Telesphore	NA	No active builder	NA	NA	Yes	NA	Farming community
Ste-Therese	NA	No active builder	NA	NA	Yes	No	Remoteness retards development
Sillery	Yes	Very short supply	NS	None	Yes	No	Area almost completely built up
Villeneuve	NA	No active builder	NA	NA	Yes	No	—
Sherbrooke	No	Adequate supply	No	NA	Yes	Not considered	Main problem is lack of mortgage funds
Three Rivers	Yes	Shortage in 1954	Not this year	None	Yes	Yes	Enough land for 1953 requirements
ONTARIO REGION							
Brantford	NA	Very short supply	Must locate in twp.	None	Yes	Yes	Annexation will alleviate situation in 1954
Brantford Twp.	NA	None available	Develop raw land	See remarks	Yes	No	No forward commitments, servicing done as building warrants
Hamilton	No	Adequate supply	No	Will be major factor	Yes	NS	—
Ancaster Twp.	NS	Not concerned	NS	None	Yes	No	—
Barton Twp.	NA	No project builders	NA	NA	Yes	No	—
Burlington	Yes	In short supply	Yes, as they finance services	None	Yes	No	Some contractors locating elsewhere
Dundas	Yes	In short supply	Will locate elsewhere	None	Yes	No suitable land	—
Flamborough E.	No	See remarks	Yes, as builder pays cost	NS	Yes	No	Plenty of land but builder must put in services
Flamborough W.	NA	No project builders	NA	None	Yes	NS	—
Nelson Twp.	Yes	None available	Yes, as they finance services	None	Yes	No	—
Stoney Creek	No	Adequate supply	No	It is a major factor	Yes	No	—
Waterdown	Yes	No project builders	NS	None	Yes	No	Municipality expects builder to finance services
Kingston	No	See remarks	No	None	Yes	NS	Most building on partially serviced land
Kitchener	No	Adequate supply	No	None	Yes	Project under way	Future looks promising
London	Yes	In short supply	Very markedly	None	NS	Yes	—
London Twp.	Yes	In short supply	Forced to use raw land	None	No	Indefinite	Some builders plan to do own servicing
Westminster Twp.	Yes	Use raw land	See remarks	None	No	No	Builders have to service land themselves
Stamford Twp.	No	Adequate supply	No	Slight deterrent	Yes	Project under way	Leading sub-divider prepared to install services
Oshawa	No	Ample supply	No	Chief obstacle to building	Yes	No	Forward commitments chief deterrent to build'g
Peterborough	No	Adequate supply	No	Very little	Yes	Yes	Land assembly project will meet needs in 1954
St. Catharines	No	Ample supply	No	None	Yes	No	—
Grantham Twp.	No	Ample supply	No	None	No	No	—
Merritton	No	No active builder	NA	None	Yes	Yes	Most building takes place outside town
Sarnia	No	Do own servicing	No	None	Yes	Yes	Sewers needed for further development
Sault Ste. Marie	Yes	Shortage next year	Not in 1953	None	Yes	Yes	No large projects built to date
Sudbury	No	See remarks	See remarks	None	Yes	No	High price of lots, the deterrent, not availability
Waterloo	No	Adequate	No	None	Yes	No	—
Waterloo Twp.	Yes	None available	NA	NA	Yes	Doubtful	—
Windsor	NS	See remarks	No	None	Yes	Yes	Builders finding better sites in townships
Lasalle	NA	No project builders	NA	NA	Moderately	No	Little growth in this area
Ojibway	NA	NA	NA	NA	No	No	No development in this area
Riverside	NA	Builders do servicing	NA	Limited influence	No	Noncommital	Not favorable to growth because of schools
Sandwich E.	No	Ample supply	No	Moderate deterrent	No	Doubtful	Not fav. to rapid growth because of fin. burden
Sandwich W.	NA	No project builders	NA	NA	Moderately	No	Major concern is problem of schools
Sandwich S.	NA	See remarks	NA	Strong deterrent	No	No	Builders must finance services
St. Clair Beach	NA	No project builders	NA	Very little	Moderately	Noncommital	Populated chiefly by high income group
Tecumseh	NA	No project builders	NA	Doubtful	No	No	—
PRAIRIE REGION							
Fort William	Likely	In short supply	No	None	Yes	Yes, in future	—
Winnipeg	NS	NS	NS	NS	NS	NS	—
Assiniboia	No	NS	NS	NS	Yes	NS	—
Charleswood	NA	No project builders	NA	NA	NS	NS	—
Fort Garry	Yes	Exhaust supply in '53	Builders do servicing	None	Yes	Doubtful	—
Kildonan W.	NA	None available	NA	NS	Yes	No	—
Kildonan E.	NS	NS	NS	NS	NS	NS	—
Kildonan N.	NS	NS	NS	NS	NS	NS	—
Old Kildonan	NS	NS	NS	NS	NS	NS	—
St. Vital	NA	NA	Builders do servicing	NS	No	Yes	—
Regina	Yes	Choice lots scarce	To some extent in '53	None	Yes	Lukewarm	Lots available in less desirable areas
Saskatoon	No	Good supply	No	Moderate deterrent	Yes	NA	City feels Section 35 project unnecessary
Calgary	NS	Adequate supply	No	None	Yes	NS	—
Bowness	NA	None available	NA	NA	Yes	NS	—
Forest Lawn	Yes	None available	See remarks	NA	Yes	Yes	Limited demand for homes lacking services
Shephard	Yes	None available	Practically no bldg.	None	No	No	—
Springbank	NA	Install own services	No	NA	No	No	Rural area, questions not to applicable
Edmonton	Yes	Enough but costly	Not in 1953	Moderate deterrent	Yes	Yes	Privately owned lots excessively expensive
Beverly	NA	None available	No	NA	Yes	No	Service lack has greatly curtailed building
Jasper Place	NA	Not available	See remarks	NA	Yes	Lukewarm	Servic'g of land would greatly accelerate bldg.
BRITISH COLUMBIA							
Vancouver	Yes	Scarce and costly	See remarks	None	Yes	Noncommital	Builders forced to build single units
Burnaby	Yes	Builders do servicing	Limited to 20 lot projects	Necessitates small projects	No	No	Cost of schools & services retards growth
Coquitlam Mun.	NA	No project builders	NA	NA	Yes	No	Current growth all mun. feels it can finance
Fraser Mills	NA	NA	NA	NA	NA	NA	Area owned by industry
New Westminster	Yes	None for proj't bldg.	See remarks	None	Yes	No	Most builders seeking land outside of city
North Vancouver	No	Use raw land	See remarks	Retards l'ge projects	Yes	Yes	Project builders must finance services
North Vancouver, City	Yes	Short supply	Limited to small projects	See remarks	Yes	Yes	Limits development of large projects
Port Coquitlam	No	Adeq'te semi-serv'd	No	Strong deterrent	Yes	Yes	—
Richmond	No	Use raw land	No	See remarks	No	No	Builders put in services. Mortgage money scarce
Surrey	No	Plenty part'ly serv'd	No	See remarks	Yes	No	Lack of mort'ge money for subdivsn. develop't
University Area	NA	No project builders	NA	None	Yes	No	Area of luxury class homes
West Vancouver	Yes	None for projects	Limited to single units	NS	Yes	Yes	Serviced land very expensive
Unorganized	NA	NA	NA	NA	NA	NA	Fully built up
Port Moody	No	Use partially serviced land	No	See remarks	Yes	Yes	Mortgage money hard to get
Victoria	NS	See remarks	NS	None	Yes	No	Short of lots at reasonable prices
Central Saanich	NA	NS	NS	NS	Yes	Not known	Remoteness limits development
Esquimalt	NS	Very limited	Strong deterrent	None	Yes	No	—
Oak Bay	Yes	Very limited	See remarks	NS	No	No	Rate of subdividing and lot prices limit activity
Saanich	No	See remarks	No	NS	Yes	NS	Lack of serviced land at reasonable prices

Footnotes: NA — Not applicable; NS — Not stated.

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BOOKS FOR BUSINESSMEN

BRITAIN'S ATOMIC FACTORIES, by K. E. B. Jay; U. K. Information Office, 10 Albert St., Ottawa; 100 pages; $1.50 ppd.

The paper-covered booklet relates the birth and development of a new industry, based, as Minister of Supply Duncan Sandys observes in a foreword, on one of the comparatively few discoveries of a really fundamental character in the whole history of mankind.

The author outlines the processes used in the three atomic factories — Springfields, Windscale and Capenhurst—and the history of their design and construction. One chapter deals with the protection of health in the factories.

The organization and methods used to bring the factories into existence are discussed in some detail, and the author concludes with a look into the future of Britain's atomic energy program. With diagrams and photographs.

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Construction's Big Battle for Power

'Billion-Dollar' Hydro Race Continues In 1954

Construction of Canadian electric stations, power plants and distribution lines in the past three years totals about $1 billion.

New power construction in 1953 was indicated at $322 millions. That was below the year before, but higher than 1951.

And with the Seaway approaching reality, there's no slump on power construction in sight.

Here's the way power construction has broken down by provinces the last three years. Repair construction, which runs less than 10% of new construction, for Canada as a whole is not included.

Construction of Electric Stations, Power Plants, Distribution Lines

	$ Millions		
	1951	1952	1953
Atlantic Provinces	7.3	8.3	9.3
Quebec	71.2	82.9	95.8
Ontario	131.9	152.8	183.8
Prairies	32.0	26.8	23.2
British Columbia	72.2	98.6	59.0
	314.6	369.4	341.1

In addition, a considerable proportion of construction of dams and reservoirs, if not the largest part, is chargeable to expansion of electric utilities. This kind of new construction ran around $28 millions in 1953, compared with $26.6 millions the year before, and $17 millions in 1951.

Here are highlights of power construction under way across Canada:

Quebec Power Race

Biggest power project under way in Quebec is Bersimis, a $180 million giant, being built on the Bersimis River 450 miles northeast of Montreal by Quebec Hydro-Electric Commission.

By 1961, it will have eight generating units with total capacity of 1.2 million hp.

Bersimis is a large job, and one of the big things about it is the largest dredge in the world.

The Bersimis project involves a 2,500-ft. long dam, an eight-mile long tunnel 36 ft. in diameter, and a powerhouse underneath a mountain. The powerhouse will house eight 150,000 hp. generating units. These are said to be the most powerful single units in existence. They will come into operation, two in 1956, one in 1957, one in 1958 and four more by 1961.

About 4,000 men are now at work.

Biggest power project that will be completed this year is a 32,000 hp. Quebec Hydro development on the Upper Ottawa River.

Ste. Marguerite Power Co. expects to complete a 17,000 hp. plant near Seven Islands, south terminal of the iron ore rail line.

The City of Megantic will finish a 2,250 hp. plant on the Chaudiere River.

Last year, Aluminum Co. of Canada completed the last four of 57,000 hp. units of its Chute-a-la-Savanne development on the Peribonka River.

Quebec Hydro finished its Beauharnois No. 2 powerhouse on the St. Lawrence, adding 110,000 hp. in two units. Total Beauharnois capacity is 1.4 million hp. A third plant may be built one day to boost capacity to 2 million hp. But Bersimis should provide enough capacity to meet demand of the next several years.

Manicouagan Power Company brought the second 45,000 hp. unit of its new $15 million plant into operation near the mouth of Manicouagan River. Four more units can be added when needed.

Construction of a new storage reservoir was completed by MacLaren-Quebec Power Co. Site is the outlet of Kiamika Lake on the Lievre River. This reservoir will provide a more constant flow of water for generating power at MacLaren-Quebec's High Falls and Masson generating station.

Power Grid Growing

Gatineau Power Co. finished a 30-mile line from LaChute to Cedars to interconnect with Quebec Hydro. It also completed a 16-mile line from Dorion to St. Polycarpe, and new substations at Dorion and Farmers Rapids, as well as extending distribution lines by 143 miles.

Next year Shawinigan Water & Power will complete installation of three turbines totaling 150,000 hp., at the Rapide Blanc, La Tuque and Trenche generating stations.

Shawinigan last year completed diversion of the Magiscane and Susie Rivers into the Gouin reservoir. The rivers had flowed toward James Bay and the Arctic. The diversion provides additional water supplies for existing turbines. Two dams, seven dikes and over two miles of canals were involved.

Price Bros. & Co. has completed two new plants on the Shipshaw River. One at Chute des Georges has a capacity of 70,000 hp., the other at Chute aux Galets, 9,000 hp.

Ontario Hydro

Continuing with the greatest expansion program in its history Ontario Hydro has raised its dependable peak capacity to 4,807,100 hp.—an 85.1% increase over the 1945 figure. By Dec. 31, 1956, Hydro will have increased that figure by over 144% in an all-system expansion involving 15 new power sources—both hydraulic and fuel-electric.

Today, 13 of these projects are in service, with the first five units of the fourteenth, the Sir Adam Beck-Niagara Generating Station No. 2 development, being readied for operation next year, followed by completion of the plant's first stage of 1,428,000 hp. in 1956. Also scheduled for 1956 is Hydro's fifteenth and most recently authorized project, the Manitou Falls Generating Station on the English River in Northwestern Ontario which will have an installed capacity of 46,200 hp.

Estimated to be in service in 1955 is a two-unit addition to the Pine Portage Generating Station which was announced in May, 1953, to serve the growing power needs of the Northwestern area. It will raise the plant's dependable peak capacity to 168,000 hp. in four units.

Significant highlights of Hydro's 1953 operation also included:

(1) Major additions to transformer and distribution facilities;

(2) Installation of the eighth and final unit at Hydro's Otto Holden Generating Station on the Ottawa River, completed last April to give the plant a dependable peak capacity of 282,000 hp. and completing Hydro's present development of the river where 951,000 hp. has been harnessed since 1945;

(3) Completion of the third unit and the fourth unit at Hydro's J. Clark Keith Generating Station in Windsor, raising its installed capacity at 60 cycles to 354,000 hp;

(4) The fourth unit at Hydro's Richard L. Hearn Generating Station in Toronto, which will give the plant an installed capacity of 536,000 hp. when all units are operating at 60 cycles;

(5) Authorization of a pumped storage reservoir and provision for four additional units as required at the Sir Adam Beck No. 2 project which will give the development an ultimate installed capacity of 1,826,000 hp;

(6) Two interconnections completed with Detroit-Edison Company which will give further protection to the Hydro System;

(7) Signing of one of the most progressive agreements in Canadian labor history;

(8) A remedial scheme beginning this year to preserve and enhance the beauty of Niagara Falls and provide for more effective use of the river flow for power production;

(9) Important developments with respect to the St. Lawrence River Power Project, rural Hydro electrification and frequency standardization programs;

(10) Announcement of "feasibility studies" to be carried out by Hydro in co-operation with Atomic Energy of Canada Ltd.

The Race In The West

In Saskatchewan, Saskatchewan Power Corp. will put a new 25,000 kw. unit into operation at its Saskatoon plant this year. Last year it completed a 20,000 kw. single-unit addition to its steam plant at Estevan. It installed a 4,300 kw. gas-engine generator set at Unity.

A capital budget of $150 millions for the period 1954-58 inclusive is forecast for British Columbia Electric Co. If natural gas becomes available in the company's service area during that time, an additional $12 millions will be required for further capital construction during the five years after.

The 1954 budget will be expended chiefly on further hydro-electric facilities. It will:

—Complete No. 4 generating unit (62,000 hp.) at Bridge River;

—Carry on construction of the 58,500 hp. Seton Generating plant, to continue the project of raising LaJoie Storage Dam on the Bridge River to a higher level;

—Erect a new high tension line (230 kv. initially, 345 kv. ultimately) between Pemberton Meadows, above Squamish, and the Chilliwack-Rosedale area, where it will connect with the existing Wahleach transmission line into Vancouver;

—Carry out a substantial amount of substation distribution and other electrical expansion.

The 1953 capital budget totaled $28.4 millions. The emphasis was, as usual, on electric facilities. Chief items involving construction were:

—$7.5 millions to develop more hydro-electric capacity to needs of the expanding population in the Lower Mainland.

—$5.3 millions to build new, or enlarge existing substations, so the company can ship power from one place to another and step it down to sizes useful in homes, businesses and industries.

—$3.1 millions to erect high-voltage lines, buy equipment and so on.

—$4.3 millions to extend and expand house-to-house electric lines, connect up new customers.

—$2.8 millions for more electrical expansions.

—$2.7 millions for services in Greater Victoria and other capital items.

British Columbia Power Commission will construct a dam this year at Buttle Lake, where surveys and drilling were carried out last year. This project will supply additional storage for the John Hart development on the Campbell River (on Vancouver Island).

British Columbia Power Commission last year completed installation of the final two units of the John Hart development on the Campbell River on Vancouver Island. Total capacity at this development is now 168,000 hp.

The Manitoba Hydro-Electric Board's program for 1954 is completion of the 80,000 hp. power generating station now under construction at McArthur Falls. It is estimated that the value of this construction for 1954 will be in the neighborhood of $10 millions. During 1953, about $8 millions of work was completed at this site. This would leave a balance of $5 millions construction to be completed in 1955.

Maritime Growth

By 1956 the hydro-electric construction now planned for Canada's Atlantic Provinces will add more than 225,000 hp to the region's power potential.

And if you include the mammoth $220 million St. John River power development plan, a further addition of 700,000 hp is possible. This plant, however, is still under consideration and is looked upon as a longterm project, mainly because of international implications. (Territory in Maine and Quebec as well as New Brunswick is involved.)

The construction program of the New Brunswick Power Commission last year included a 27,000 hp development on the Tobique River and a 33,500 hp extension to the steam plant at Grand Lake. These projects represented the largest annual generating capacity increase in the Commission's history.

Should the St. John River project get a go-ahead signal, a storage area of 350 million acre-feet would have to be constructed. Of the 21,000 sq. miles drained by the 450-mile-long St. John River, 11,000 are in New Brunswick, 7,600 in Maine and 2,700 in Quebec. The river's flow is very irregular and an extensive system of storage dams will be needed to make the development a reality.

The major job would be the building of storage dams in Maine and Quebec. So far, only the Beechwood site has been given official approval by the International Joint Commission. Recommendations call for the initial construction of two 45,000 hp units with two more similar units to be added later. The estimated cost of this project amounts to over $45 millions. Other St. John River power sites recommended by engineers are at Morell, Rankin Rapids and Hawkshaw.

Nova Scotia Light and Power Co. has spent over $3 millions in recent construction programs, with the main project being the 4,000 kw White Rock addition to the Black River Power scheme—the final step in the 20-year development of the 29,600 hp system. Last year the company also opened its new 30,000 hp addition to the Halifax steam generating plant, which cost over $3 million to complete. This unit will boost capacity of the station to 73,600 hp—about two thirds of the company's total system generating power.

Already on order for 1955 operations is an additional 34,000 hp turbo-generator with a suitable boiler. Construction work on this further expansion has just recently got under way. Eventually, it is planned that an even larger addition will be made to the Halifax site.

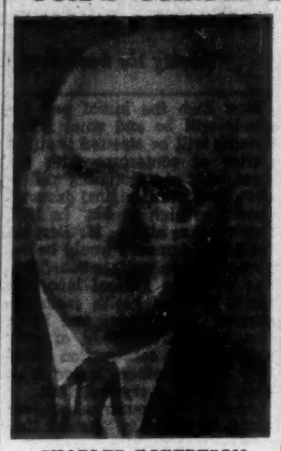
Another project under construction by the company is a $2.5 million 9,000 hp development on the Nictau River which is expected to be ready later this year. It will be connected with the 5,000 hp Paradise River development completed in 1951.

The Nova Scotia Power Commission recently doubled the capacity of its Trenton steam generating plant with the opening of a second 10,000-kw unit. Another addition was the 8,600 hp Gulch development on the Bear River.

Scheduled for completion in 1955 is a 20,000-kw steam unit,

(Continued on page 64)

CCA'S Central Province Leaders



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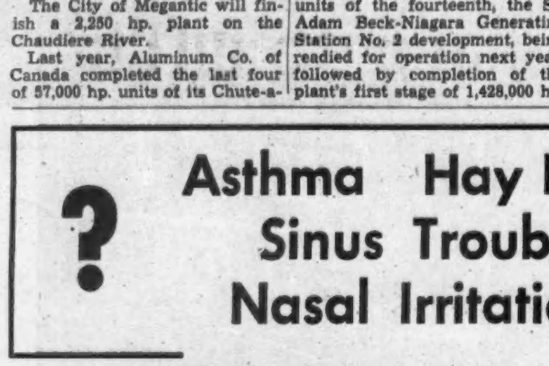

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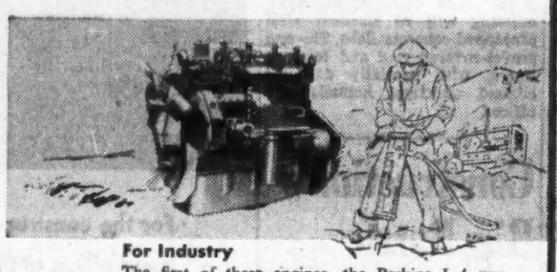

For Industry
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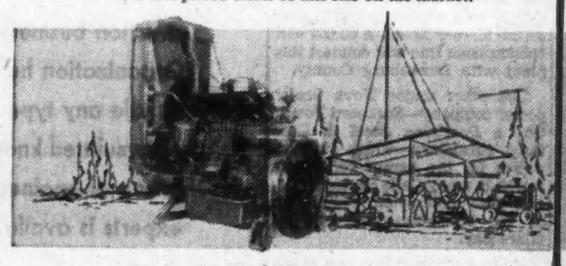

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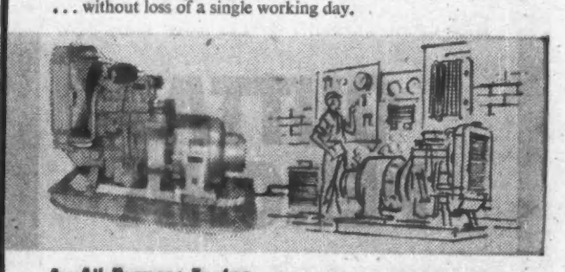

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Signs Point to Wage Race Slowdown

HOW CONSTRUCTION WAGES HAVE CLIMBED

City	Bricklayers 1945	1952	1953	Carpenters 1945	1952	1953	Electricians 1945	1952	1953	Painters 1945	1952	1953	Plasterers 1945	1952	1953	Plumbers 1945	1952	1953	Sheetmetal Workers 1945	1952	1953	Laborers 1945	1952	1953
Halifax (a)	1.15	1.69	1.81	.95	1.48	1.56	1.06	1.86	1.67	.81	1.32	1.37	.95	1.60	1.70	1.02½	1.55	1.65	.85	1.38	1.47	.52	1.06-1.20	1.10
Saint John	1.10	1.80	1.80	.81	1.45	1.50	.85	1.47	1.57	.76	1.24	1.34	1.10	1.80	1.80	.88	1.45	1.55	.81	1.25	1.25	.53	.75-1.15	.75-1.15
Quebec	1.00	1.60	1.65	.80	1.40	1.45	.80	1.40	1.45	.75	1.35	1.40	1.00	1.60	1.65	.80	1.40	1.45	.80	1.40	1.45	.60	1.05-1.15	1.10-1.20
Montreal	1.06	1.90	2.00	.96	1.70	1.80	1.01	1.80	1.90	.86	1.60	1.70	1.06	1.90	2.00	1.01	1.80	2.00	.96	1.70	1.80	.61	1.15	1.25
Toronto	1.23	2.25	2.35	1.11	2.10	2.20	1.21	2.20	2.33	.97	1.90	1.90	1.21	2.15	2.25	1.17	2.15	2.30	1.18	2.10	2.25	.67	1.10-1.20	1.20
Hamilton	1.19	2.15	2.25	1.04	1.95	2.00	1.05	2.00	2.00	.86	1.50-1.65	1.65	1.07	2.10	2.15	1.07	2.05	2.15	1.04	2.00	2.10	.65	1.05-1.15	1.10-1.15
Windsor	1.26	2.25	2.35	1.16	2.00	2.10	1.26	2.05	2.25	.95	1.70-1.90	1.73	1.15	2.00	2.10	1.25	2.20	2.25	1.06	2.00	2.10	.75	1.20-1.55	1.58-1.62
Winnipeg	1.25	2.00	2.10	1.05	1.80	1.90	1.05	1.90	1.90	.90	1.55	1.65	1.25	2.00	2.10	1.15	1.90	2.00	.85	1.65	1.75	.63	.95-1.15	1.05-1.25
Saskatoon	1.30	2.05	2.12	.96	1.70	1.80	.93	1.75	2.00	.70	1.40	1.60	1.06	2.05	2.00	1.06	1.85	2.00	.81-.85	1.10-1.46	1.03-1.65	.58	1.13-1.23	1.23
Edmonton	1.31	2.17	2.22	1.03	1.85	1.95	1.06	2.05	2.15	.91	1.55	1.55	1.31	2.00	2.12½	1.16	2.00	2.15	1.07	2.00	2.05	.61	1.20	1.25
Vancouver	1.29	2.15	2.32	1.12	2.10	2.17	1.19	2.20	2.30	.97	1.90	2.07	1.10	2.25	2.25	1.19	2.25	2.25	1.18	2.25	2.25	.71	1.30	1.55

(a)—1952 and 1953 rates do not include hourly allowance in lieu of vacation pay.

Building Trade Unions Headed For Much Stiffer Opposition

Signs along the construction-labor road this year point to a leveling in the wage climb that has been on since the midwar years. But along with those signs are others warning of heavy going ahead in labor-management negotiations.

Most unions in the construction field appear headed toward far stiffer opposition from employers across the bargaining table though union officials scale down demands from peaks reached since the Second World War.

With the customary basis for higher wage rates—increased living costs — largely disappeared, other arguments are coming to the front. One of the favorites among unions generally now is the demand for an increased share of productivity.

With a good wage year behind them—the average increase for unions in the industry in 1953 was 5%—there is a good chance that unions will lower their sights somewhat for 1954. If they don't, there could be serious disruptions. A good guess at the average '54 increase—2½%.

Second-Year Clause

One reason for the relative stability in labor relations last year was that it was the second year of two-year agreements in many cases. Approximately 30% of rates on which complete figures are available showed no increase during 1953. Most increases granted were for 10c an hour or l[illegible]; only 15% of the contracts contained provision for pay boosts above that figure.

Time lost through labor disputes in the construction industry last year decreased sharply from 1952—the worst year since 1919. Many of these disputes were of a jurisdictional nature as unions with the same parent affiliation jockeyed for power. This development was much more serious in the U. S. than in Canada, however.

Union leaders throughout the country are facing a dilemma this year. On the one side there is a pressure from their members for higher wages and on the other are the cold economic facts of a general leveling in the economy that doesn't warrant higher wages.

For the man on the street, increases to building trade groups are more quickly translated in cost to him than in some other industries. A 10c hourly pay boost for the carpenter and others who work on a house means the buyer may have to hand over an extra $250 before he can hang up his hat and call it home. If the carpenter doesn't realize this, his union official does and it may have a dampening effect on demands.

Even if last year's raise is halved, the $125 extra on a house will make it harder to sell in 1954. The builder realizing this—and realizing demand for housing may have slackened slightly—will oppose the union's call for higher wages.

Fringe Benefits

Natural alternative to pay boosts—improved fringe benefits—will probably get even more attention in 1954 negotiations as union officials strive for something to take back to members. Since most such fringe benefits cost the employer money, there will be opposition at this stage too.

How high the initial pay demands will be and what fringe benefits will be stressed is still a matter of conjecture with the great bulk of negotiating still to start. Last year, original demands started as high as 40c. In 1952, they were as high as $1. Best bet for fringe demands would be improvements in welfare benefits in line with the general labor cry for a national health insurance scheme. The Trades and Labor Congress, parent body of most unions in the construction industry, joined other major labor groups in this cry last year.

Across the country last year, contracts signed in Western Canada contained some of the biggest wage increases—some up to 15c an hour. Vancouver is the highest wage area in the West with the Prairies somewhat lower. Toronto is still the highest area in the country with Quebec and the Maritimes still lowest.

One factor which might well send 1954 demands higher than expected is Federal Government's new housing legislation which will enable banks to lend money for housing mortgages. Some unions see this as bringing a boom in housing construction and putting them in a strong bargaining position. The more demand there is for tradesmen, the more money those tradesmen can demand.

But this thinking has been spiked and labor warned against it. John Flood, former Canadian Construction Association president, two months ago warned unions to keep demands down unless they were prepared to increase productivity. From the unions there has been no indication of willingness to make such a pledge.

Mr. Flood said that if unions raised their demands on the strength of more house construction brought on by the new legislation their action could "wipe out the benefits envisaged."

$100 Millions in Hospital Construction Adding 7,000 New Beds For Montreal

During 1953 an estimated 5,700 beds were added to Montreal's hospital capacity — a record believed unmatched by any city in the world.

Despite this unprecedented boom in hospital construction and expansion, it has been estimated that Greater Montreal is still short some 1,500 hospital beds—predicted to cost an additional $22 millions. Also urgently needed are more convalescent homes.

The City of Montreal Department of Social Welfare states that to date some 56 official fund-raising campaigns are slated to be held during 1954. Goals of these drives—which include efforts to balance operating budgets of hospitals concerned—is estimated at around $40 millions.

Involving over $100 millions, 18 hospitals are now in the process, have recently been completed, or are contemplating additions which will eventually add a total of some 7,000 sick beds to the medical institution capacity of Canada's largest city.

Per-bed Federal grants, as well as substantial provincial and municipal financial aid, have been all-important factors in the boom —but economic mainstay of most projects is the generosity of Montrealers, who continued to contribute an unabated stream of money to a seemingly never-ending series of fund-raising campaigns.

There are a total of 40 hospitals on the Island of Montreal, and the capacity of most is being severely taxed by the rapid growth of the metropolitan area. With an estimated 1,750,000 population, the Island's medical institutions have not really kept pace with population growth. Now, however, the gap is being narrowed.

For Sick Children

What will be one of the largest sick children hospitals in North America is now being completed on St. Catherine Road. This is the Hopital Sainte-Justine Pour Les Enfants, which will eventually have close to 900 beds for children, as well as residential accommodations for 350 nurses. (Toronto's Hospital for Sick Children has 750 beds.) Cost of the project runs around $17 millions.

The $6 million addition to the Jewish General Hospital will raise its bed capacity from 226 to 366. The famous Hotel Dieu, which is the second oldest hospital in Canada, is increasing its bed capacity to 750 at a cost of some $7 millions, while the Hopital Ste. Jeanne d'Arc will bring its total bed capacity to 640 through an $8 million program. This institution also plans to reconstruct part of its existing facilities to provide additional nurses quarters.

The largest expansion program is that of the McGill-affiliated Royal Victoria Hospital which has received some $60 millions in the last four years and is one of the four English-language hospitals affiliated with the university's School of Medicine. The current growth at these institutions will eventually result in the provision of new accommodation for about 1,400 patients. This includes the ultramodern Montreal General Hospital building which is now being completed, as well as the Royal Edward Laurentian Sanatorium for Consumptives, and the Children's Memorial Hospital.

The new Montreal General Hospital is a 19-story 760-bed institution being built at the foot of Mount Royal at an estimated cost of over $25 millions. The Royal Edward Sanitorium is adding a 100-bed surgical wing and a school for tuberculosis nursing while the Children's Memorial Hospital will be moved to a new site which will give it a 300% increase in bed capacity. The Royal Victoria Hospital is now completing a 280-bed wing and will also add a floor to the existing north-central wing to house kitchen facilities. The Allan Memorial Institute affiliated with the Royal Victoria will also be expanded by 57 beds for psychopathic treatment.

Other Activity

The balance of Montreal's 1953 hospital expansion roster is a long one. Here are some of the highlights:

The $2.3 million McConnell wing of the Montreal Neurological Institute was completed during the year, adding 30 new beds.

At the Notre Dame Hospital, construction began last September on the new $8 million wing which will increase bed capacity to 1,200 from 750 when completed in 1955.

The Verdun Protestant Hospital is planning to erect a 325-bed addition which would house new treatment facilities.

The Prevost Sanitarium at Cartierville, near Montreal, will increase its capacity by 75 beds in 1956, when its $1 million construction program comes to an end.

The St. Luc Hospital is planning to add a new north wing which will house 300 more patients.

Also announced is a 1,200-bed hospital for mental patients in Montreal, although a definite site has not yet been made public.

The Provincial Government has set up a committee to report on the state of hospitals in the province to get an over-all view of the situation, especially regarding the need for more convalescent homes. Some 91 hospitals and sanatoria have been built in the province since 1945. The committee, which will operate on a $60,000 budget, will report its findings within a year.

Not forgotten in the multi-million hospital-building splurge are non-human patients. The Montreal chapter of the Canadian Society of Prevention of Cruelty to Animals is now constructing a large new Animal Hospital, which will feature some of the most modern conveniences on this continent. The U-shape, one-story building will be finished with precapped concrete slabs, tile- and gravel-covered roof and terrazzo floors, with specially designed clinical quarters, kennels and offices.

Construction's Big Battle For Power

(Continued from page 63)

which is to be housed in an extension to the Trenton plant. To cost $2.2 millions, the unit is needed to handle increased power demand and replace obsolete steam generating equipment. Also, the Commission expects to start work shortly on a 5,000-hp development on the Mersey River. A 69,000 volt transmission line will connect this plant with Lunenburg County.

The other major Nova Scotia power company—Seaboard Power Co., a Dominion Steel & Coal Corp. subsidiary—which supplies power for the parent company's works in many Cape Breton areas, last year completed installation of the 18,750-kva generator at Glace Bay.

Major expansion program of the Newfoundland Light & Power Co. is the 30,000-hp development at Piper's Hole, which is expected to start production before the end of 1955 to provide power supplies for Bell Island, St. John's and other towns in the Avalon Peninsula through a 100-mile transmission line. Total potential of the Piper's Hole River is over 70,000-hp and it is hoped to develop this over a period of years.

Montreal Salesman Writes

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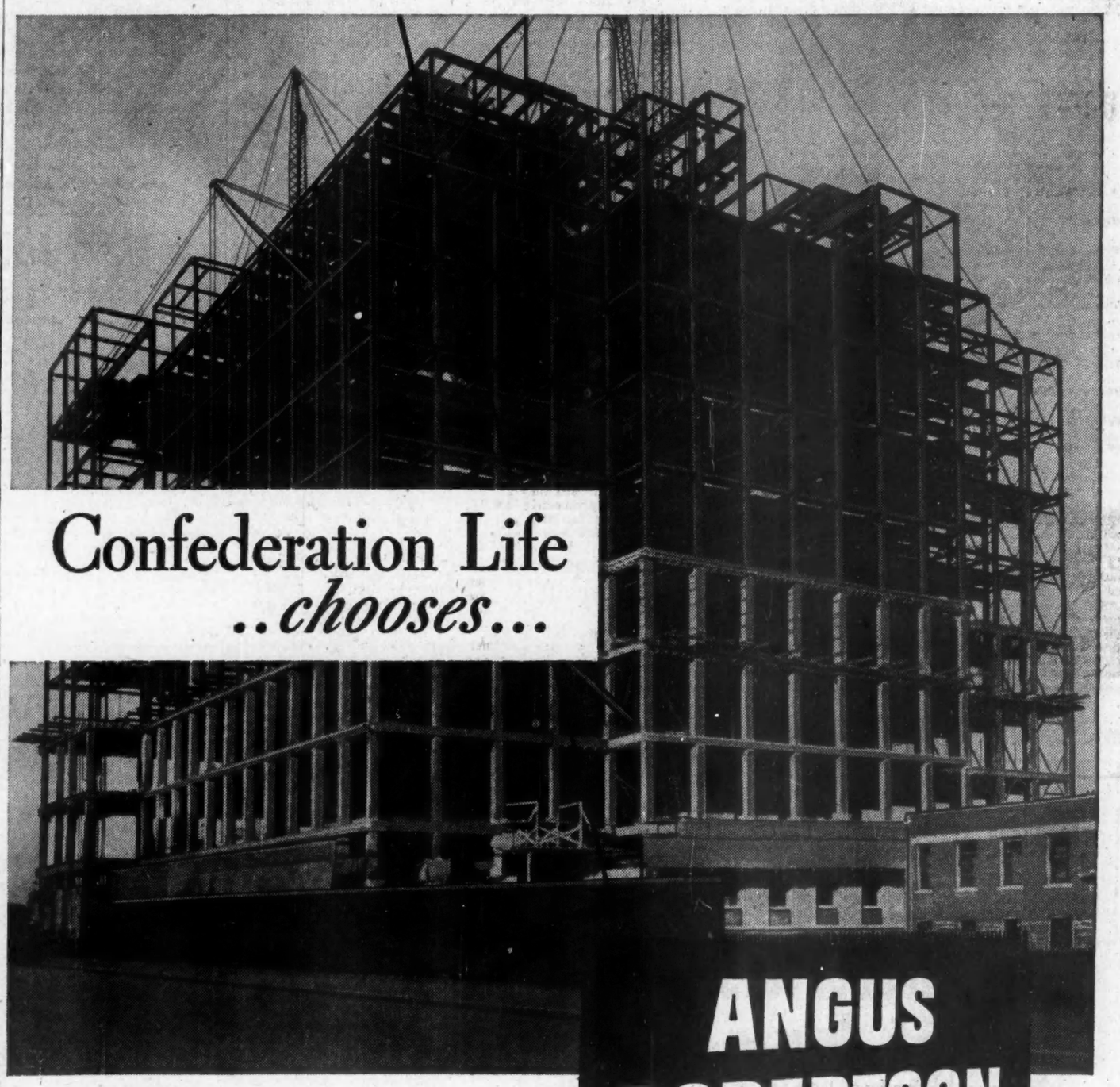

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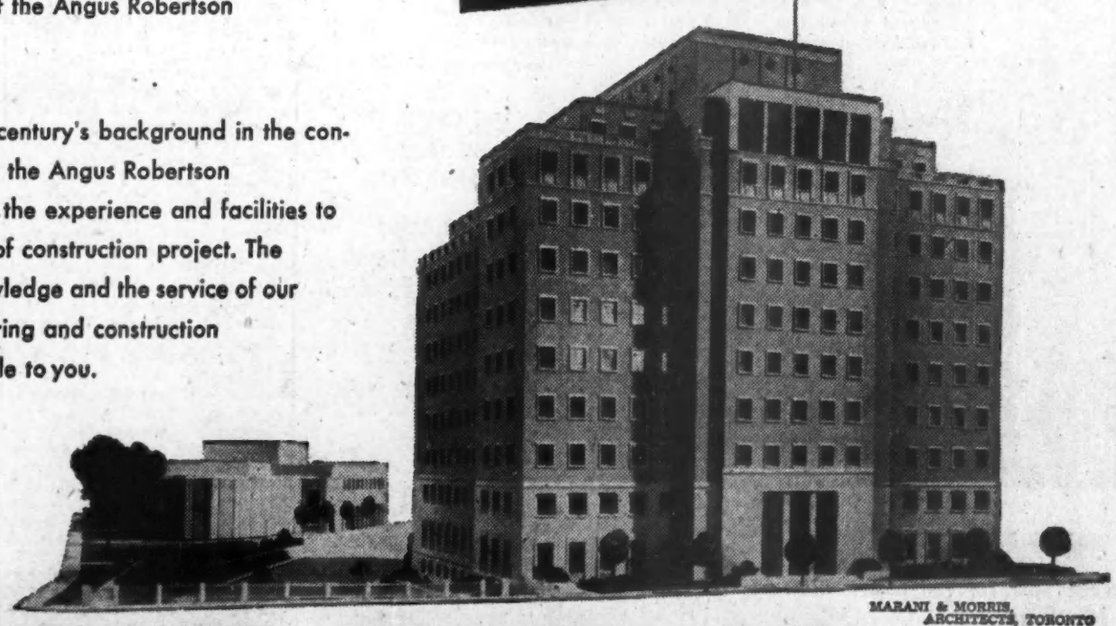

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Office Buildings Get a 'New Look'

Here Are Outstanding Changes In Office Architecture

Many ways to get more for one's money in new office construction and renovation of old office buildings are now available. W. G. Leithead, partner in a leading Vancouver firm of architects, McCarter Nairne & Partners, outlined outstanding changes in office architecture in an address to the building owners in Seattle. Here is a digest of his views on the subject:

By W. G. LEITHEAD

The office space in which the tremendous volume of business is carried out has been changed considerably in physical character in recent years. The age of bigness for bigness' sake, which characterized our skyscrapers of 30-odd years ago, is gone. The economics of our age, reflected in high construction costs together with the emergence of new materials, advanced design and construction techniques, the accepted use of mechanical equipment barely thought about a few years back and very important the climbing wages of maintenance personnel are factors which have brought about this change.

The emphasis in design of office building now is on increasingly better, more comfortable office accommodation, at a relatively low cost.

Better accommodation for low construction costs presents an increasingly difficult task to the architect, owner and builder. In satisfying these apparently opposite demands we are seeing the birth of a radically different type of office structure.

The speculatively built office building (that is one erected for multiple anonymous tenants) is the type that this gathering is mainly interested in.

The speculative owner, who, by definition is taking a huge risk in even building the structure cannot afford to use relatively untried or radical methods of construction or very new types of material. He must build using established methods. This type of building understandably for these reasons has not pioneered many of the recent changes in design and construction.

On the other hand, we find the owners who are building for their own use, can afford to be more bold, in fact, are anxious to create a dramatic, entirely new type of structure.

It is in this type of building, which is in a sense experimental, where we find entirely different concepts of design and construction put into practice, methods which when proven are accepted into common use and represent many forward steps which affect building design.

Head CCA On Coast

E. H. McKINTY
of McKinty & Sons, Victoria, Provincial Vice-President, British Columbia.

JOHN REED
of Saint John Dry Dock Co., Saint John, Provincial Vice-President, New Brunswick and P. E. I.

The type of buildings I refer to are those such as Level House, New York; the Alcoa Building in Pittsburgh; the United Nations Secretariat; and, of course, the Equitable Building in Portland.

These buildings have a terrific impact on the public, are studied by our profession and become extremely efficient advertisements for the company or body which erects them.

The comfort of the occupants of these buildings is considered to be one of the prime factors in their design. The tenant is presented with efficient vertical transportation, a mechanically controlled atmosphere, a high quality of natural or artificial light and many other effective services.

These new trends are reflected quickly in the small two-story buildings or taxpayers as they are known, in fact, they are demanded by prospective owners and if these facilities are not there we see a poor occupancy record.

The factors of lower construction costs, better accommodation with lower maintenance costs are being solved in some of the following ways:

1. By building lighter, thinner, outside walls or a more genuine curtain wall, thus adding valuable rentable area to the building and still retaining all the essential characteristics of keeping out the weather and artificial climate in, letting in a healthy amount of daylight and keeping noise out.

2. By building a structural frame or skeleton which can be erected quickly with the minimum amount of labor, which exploits to the full the strength of the material used, and reduces to a minimum the number of component parts.

3. By the installation of mechanical services which will provide comfortable heating, cooling and humidity conditions, better working light, efficient, vertical transportation, and permit the degree of flexibility which will allow space to be divided into any combination of desired rentable area.

4. By the use of materials which do their jobs of providing hard-wearing, easily cleaned surfaces, requiring the minimum amount of maintenance and renewal.

5. By using techniques in the placing of all the foregoing which permit the maximum use of machine production and erection.

To enlarge on these five statements: What are the details of these new techniques and materials, and which ones are of interest to you, who perhaps, are either contemplating new buildings or the revamping or modernizing of old buildings?

First, this question of curtain walls. There is nothing new in the idea of the curtain wall. Without curtain walls, skyscrapers would have been impossible. My research tells me the last tall building with self-supporting walls was the 16-story Monadnock Building built in Chicago in 1893, in which the walls reached a thickness of 15 ft. at the base, being the amount of masonry needed to support the crushing weight of the superimposed masonry.

Since the advent of the curtain wall, which is supported by the structural frame, the weight and thickness of walls has decreased from 175 lb. sq. ft. and about 12 in. thick in the case of the Empire State (whose outer walls incidentally, weigh upward of 30,000 tons) down to 4 lb. per sq. ft. and 1½ in. thick in a new skyscraper now on the boards for the Republic National Bank in Houston.

Possibly the most interesting factor in discussing thinner wall construction is the increased amount of rental area in a building built to the lot line with walls 6 in. thick instead of 12 in.

You figure it out—for a 20 story building with a perimeter of say, 600 linear ft., the lighter weight of this wall also reduces the immense deadweight of the building, which in turn means lighter frame, smaller foundations, easier and faster erection, all of which are of paramount importance in reducing the cost of a tall building.

Building Codes

As to the composition of these lighter walls, that is the architect's problem. Numerous types are being used or in the process of experimentation, basically composed of lighter, thinner facing materials, such as aluminum, ceramics, thin stone or glass,

(Continued on page 68)

• Roads • Bridges
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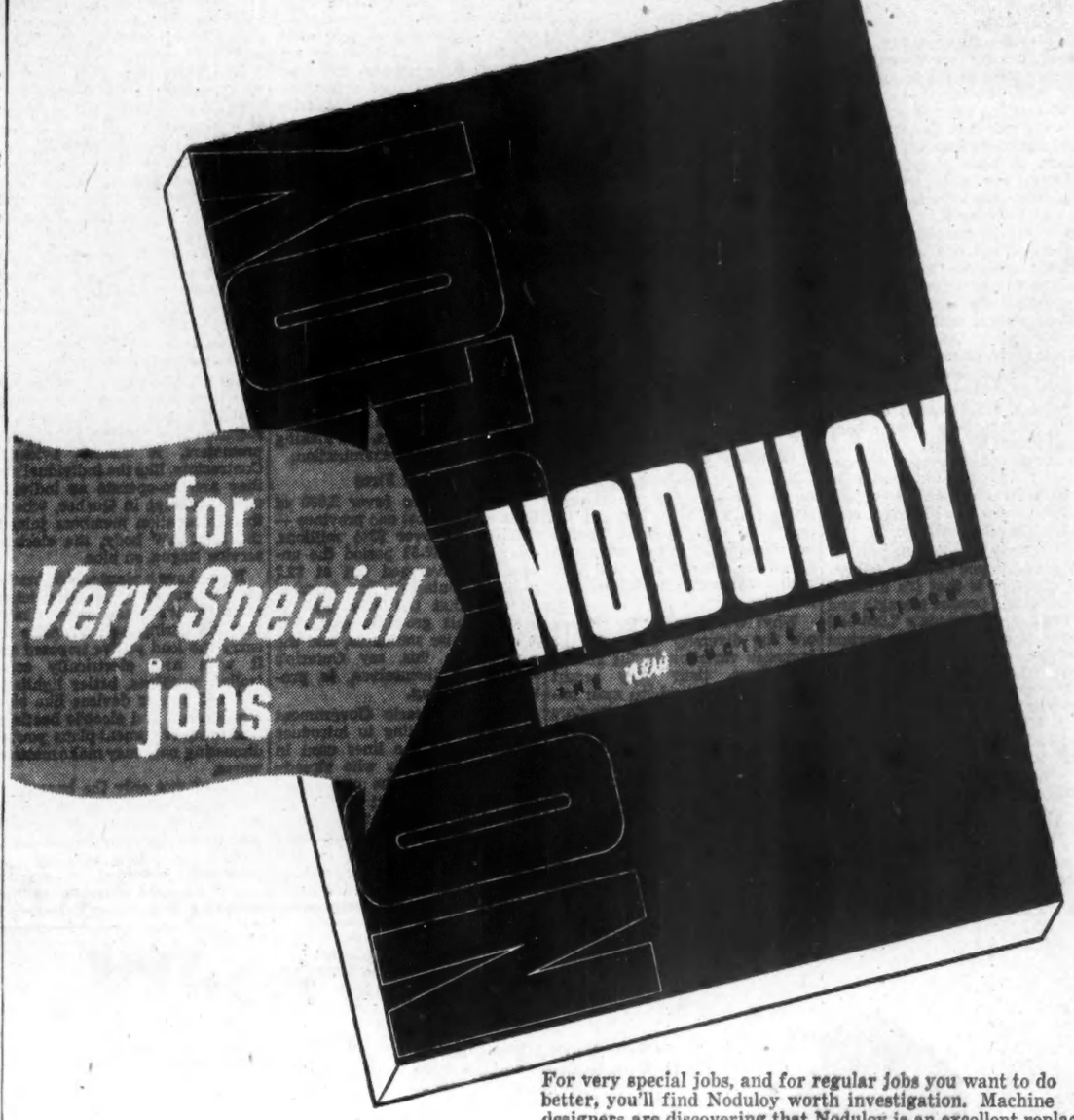

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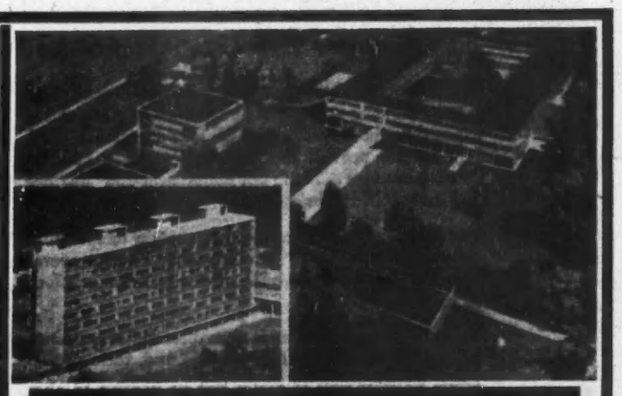


SCHOOLS FOR LONDON (ENGLAND) COUNTY COUNCIL

SCHOOL UNDER CONSTRUCTION AT DON MILLS DEVELOPMENT, TORONTO

Big Role For Electrical Contractor

7,000 Firms Share in Boom New Building Projects Bring

By L. H. C. JENNINGS
Editor, Electrical Contractor of Canada (Maclean-Hunter)

When you call an electrician to solve a minor household crisis, he may be that familiar figure, the man who does a bit of simple rewiring, fuse-mending or tinkering with your fridge, washer or TV. But today it's much more likely that the man who arrives in the smart panel truck is a serviceman on "small calls" from a firm with an annual turnover of hundreds of thousands of dollars.

For the electrician in Canada, booming along with Canada's progressing prosperity, has grown up from a self-employed technician with one helper, if you like, to be the head of a firm which is tackling the job of installing and maintaining the power, equipment and electrically controlled machinery for Canada's new plants and commercial buildings. He's a multi-million-dollar member of the busiest construction industry team in the world.

In your home, those "small calls" may be your only contact with the fact that Canada's electrical contractors are big business, though in your plant or office building, you may be rubbing shoulders with their larger work without knowing it.

How big is the electrical contractor? That's one of the most difficult questions to answer — and one which, if you don't know the answer by experience, you have to answer with other statistics.

Look at the phenomenal growth of electric power's use, look too at the growth of industry and commerce, which use it and the new construction they have bought since the war.

Look at the production of electrical goods (of all kinds) in Canada. All on their way up, all of them show the electrical contractor's business stature.

Many Small Firms

The reason you need the following statistics is that it's difficult to assess the precise strength and prosperity of Canada's 7,000-odd electrical contractors. It's certain that for every one of the big firms whose turnovers run into millions, there's many more medium-sized contractors ($1 million or a bit less) and small men ($250,000 on down) whose work attracts less notice, but the total of which is certainly a considerable sum.

Reason it out this way: architects, engineers and the contractors themselves figure that 10% of the cost of any new construction goes in electrical work. More on industrial and commercial work, less on mass-produced housing, it's accepted as a good rule-of-thumb.

Apply that 10% to 1953's new construction dollar value, think of it again for 1954 — and remember that new construction is only a part of the electrical contractor's market.

For further evidence look at the production of Canada's electrical industry — the wire, cable, fittings and equipment, appliances and other electrical goods which the electrical contractor installs and services.

In 1952, DBS figures show the value as $716 millions, plus $120 millions for electrical goods produced by other industries.

In 1953, the figure excluding other industries' production is assessed at $850 millions.

And for 1954, industry spokesmen think that 1953 volume will be exceeded by around 10%. That will make this year's total (if you include the outside production) pretty close to the billion dollar mark.

This billion dollars represents the material the contractor works with, the material he installs, the appliances and the equipment he puts in and maintains. Add it to his share of new construction and the term "big business" begins to shape up.

But once again, that's not all the electrical contractor's market. There's re-modeling and additional equipment (the latter doesn't show up in new construction) for industry, commerce and the home.

And getting down to the small man's level, there's the flourishing service, maintenance and repair section of the industry. That's a brief survey of the market.

Industry of Individualists

But for all the industry's new-found prosperity and increased stature, it's still largely an industry of individualists. There's not the same feeling of being part of an industry that you'd find with building contractors, for example.

Why? Well, some of the reasons are the diversity of work, the immense variation in the size of the firms, their very recent growth, and — perhaps most importantly — electrical contractors have no national body representing them, binding them together, no country-wide forum at which they can meet their competitors, manufacturers, wholesalers and labor and talk things over. Businesswise, they keep to themselves a good deal.

And this individuality makes it so hard to prise the statistics (that this article might have included) out of the contractors that even DBS admits defeat.

But when you spend your time, dealing with contractors, illustrating their projects, and telling their success stories, there's no doubt about their prosperity, or their importance — statistics or not.

The provincial electrical contracting associations are the forerunners of the national association many of us believe will be formed soon — and their activities show just how much the electrical contractor is doing.

Take just one of these groups: the three years old Quebec Corporation of Master Electricians. Those who know it, rate it one of the province's most powerful, most successful and most-valuable-to-the-member trade associations.

It works with manufacturers, distributors and utilities and along with a fierce, jealous determination to see that its members' importance is recognized and their rights observed goes a program to work in with every industry or other group where interests converge on its own. Just now, the Corporation, for example, is studying the technicalities and selling-problems of electric heating in a round-table series of talks with manufacturers.

This work should cover 10 provinces, not three.

And there's another more serious issue, which affects the general public — the damage and loss of life due to fires caused by faulty electrical work — an issue which Quebec, along with Saskatchewan, British Columbia and New Brunswick is combating on a provincial basis by licensing electrical contractors, and making them sit a written examination.

Cost of Fires

Electrical fires (over 2,000 of them a year) cost one province — Ontario — over $3½ millions. Over the 1947-51 period the annual loss averaged out at $2.7 millions. Ontario's fire marshal believes that the only way to combat this growing total is a drive to raise standards, and the way to do this, say Ontario's contractors themselves, is provincial licensing.

But the Ontario Government has been unwilling to introduce legislation on the lines used in the four provinces who already have it, and so the contractors themselves have sat down and worked out a registration scheme, under which all their members will pass examinations — and will be bonded for their work — as a measure to ensure competence. In Quebec, contractors administer licensing themselves.

In its way this problem of electrical fires is typical: for it points up the might-have-been of what a national association could achieve on this issue. It also shows that the new-found prosperity has attracted some half-skilled men, too.

Electrical contractors are taking part just now in an important program: the drive by the electrical industry to sell consumers of electric power on the need to ensure that their wiring will stand the load it's asked to take.

The increased load from modern appliances: ranges, washers, TV sets, air-conditioners and the other electrical comforts of business and home life has leapt up too fast for many circuits: inefficiency or failure results.

Working with other industry groups, contractors are surveying what may yet prove to be one of their most promising markets, and selling it through an adequate wiring program largely financed by electrical manufacturers.

This adequate wiring program may yet point up the contractors' importance to the community as nothing else has done, for it will sharply indicate to public and private power consumers how much they rely on their electrical installations.

And consumers' eyebrows may be raised when they learn that the figure of 10% of new construction for electrical work was 5% 15 years ago. It's another index of the growth from the one-man shop to the key trade.

But on AW, like other national issues the contractor's concerned with, the lack of a national association to work with CEMA, the promoters, is clearly evident. Contractors, like the individualists they are, co-operate as individuals — except in Quebec, where the Corporation members joined the local AW body, the electric service league, en bloc.

If you have a plant which hasn't been surveyed by an electrician recently, it's more than likely that the wiring isn't adequate to carry the load you've imposed on it with new electrically controlled machines, better lighting, and still newer devices like air-conditioning and electric heating. And the development plans you're discussing now may make matters worse.

There's not only the hazard of fire or explosion from overloaded electrical circuits; often you'll get continual inefficiency and breakdowns which only an experienced electrical contractor would diagnose correctly as the need for a systematic rewiring job.

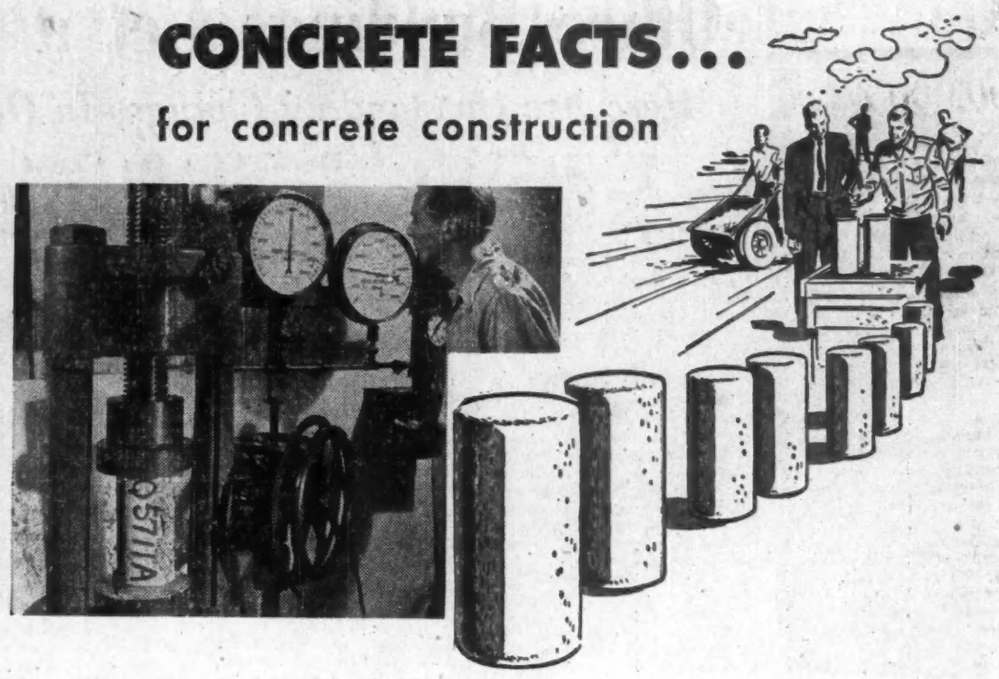
It's well worth while to check over this aspect of your plant regularly, and if you haven't done so, call an experienced industrial contractor who will tell you just how you stand. It may prevent fire, inefficiency and — if you plan rewiring properly — save you money when you want to expand later.

A good way of summing up the picture for the electrical contracting industry in 1954 is to recall once more the fields in which it will be working. New construction of every kind will be yielding its share of business — new plants, modernized and re-equipped plants, modernized office buildings along with the new space which is on the drawing boards.

The schools, apartment buildings and homes will jostle for a place in the contractor's order-book along with natural resources development — all these are the jobs on which the tradesmen's board will include the phrase "electrical installations by ..."

CONCRETE FACTS...

for concrete construction



"Educated guesses" form a pretty flimsy basis on which to proceed with any important construction project. The construction industry today demands not only concrete facts based on scientific tests but field work that is laboratory controlled throughout.

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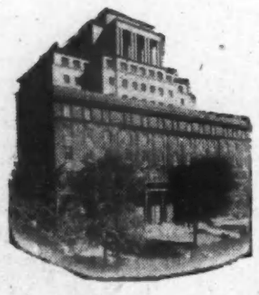

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Manufacturers Life Building Achieves New High Standard of Working Comfort

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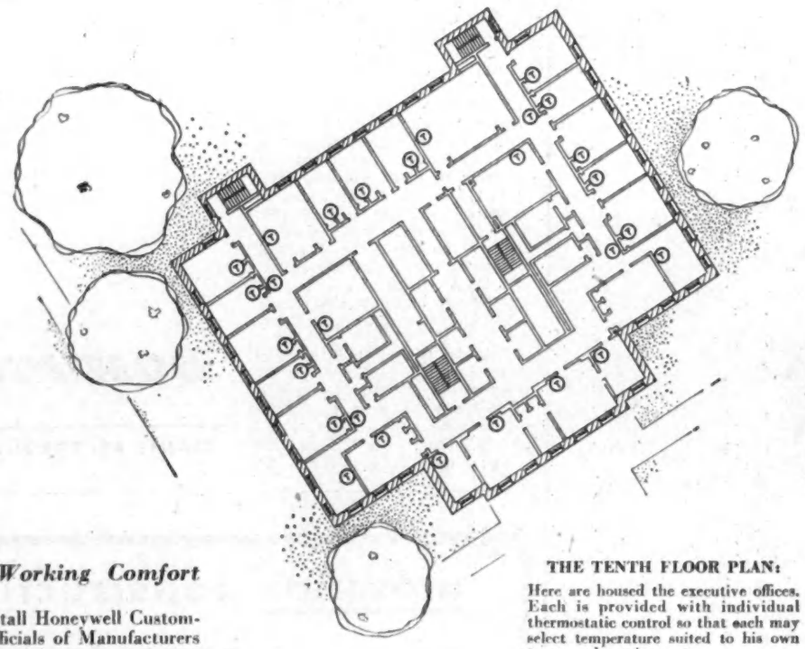
For that matter, how can you be certain temperature control equipment will stand up under 24-hour operation and give the dependable service you cannot afford to be without?

With modification, the answer to these major questions which Manufacturers Life officials and their professional advisors had to solve, can be applied to your own business.

The answer in five words: Install Honeywell Customized Temperature Control. Officials of Manufacturers Life have found it eminently satisfactory and you too will find it the answer to increased employee comfort and efficiency.

Key reason why this is so is found in the word *customized*. This means that whatever the control requirements of the building, Honeywell Customized Temperature Control, *designed to meet the needs of the building*, is your solution. This applies to heating and cooling, ventilation and humidity control.

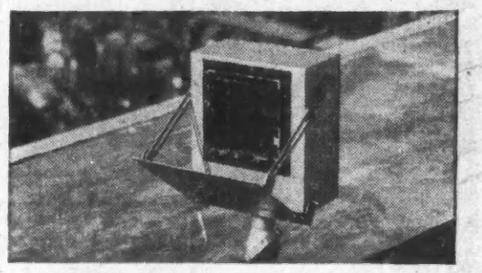
The customized installation, in the case of Manufacturers Life, included careful selection and strategic placement of control elements hitherto not used in Canada, individual executive office control, and nine separate building zones running from basement to roof.



THE TENTH FLOOR PLAN:
Here are housed the executive offices. Each is provided with individual thermostatic control so that each may select temperature suited to his own tastes and requirements.

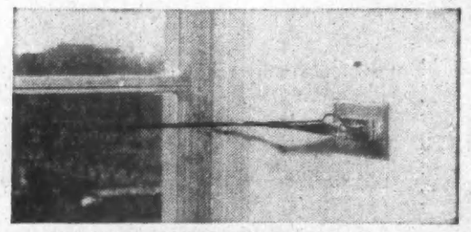
Two Unique Honeywell Control Developments Help Make This Building Completely Comfortable

Nine separate zones run from basement to roof. There are four sill zones controlled by window thermocouples. Four peripheral zones are given supplementary control by sun compensators located on roof. The ninth zone is the interior zone which is controlled by the power load in the building. When lights are on during working hours, heat is reduced or cooling introduced, as the case may be, to compensate for the changing heat load brought about by sudden changes in building occupancy.



SUN LOAD COMPENSATOR

Three sun load compensators are mounted on the roof facing East, West and South. They measure the sun's intensity and control cooling in three peripheral zones to take care of excessive heat which may be caused by sun's radiation through the building windows. The fourth peripheral zone facing North where there is no sun does not require sun compensator.



WINDOW PANE THERMOCOUPLE

Thermocouples are mounted against a window on each side of the building. They sense temperature changes of the glass and control heating and cooling in their respective zones accordingly. Glass temperature varies, according to outside temperature and wind conditions, and thus automatic compensation is made for all outside weather conditions as they affect the heat load.

All employees in the Policy Department, as in all others, are comfortable at all times regardless of effects of sun, wind and changing outside temperatures on their part of the building.

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Honeywell Customized Temperature Control will solve *any* heating, ventilating, or air-conditioning problem that you may have.

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Honeywell makes the most modern . . . the finest control equipment available. Their controls give trouble-free operation . . . greater efficiency . . . and lower fuel costs . . . and every control is backed by the best service organization in the industry.

For the facts you may need on Honeywell's Customized Temperature Control, call your architect, heating engineer, local Honeywell office, or mail this coupon today.

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New, Nationwide Designs for Living

$500,000 Backs 'Trend House' Campaign of B.C. Lumbermen

"Develop ideas slightly in advance of existing home building techniques in your area."

That's what the industry associations behind the "Trend House" promotion told architects it picked to build its demonstration houses in 10 cities.

That's what industry associations told architects it picked in 10 cities to build demonstration "Trend Houses" to promote sale of western woods.

And that's what the architects did.

Their aim is to set a pace in custom-built houses that will filter down to speculative builders as it becomes associated in the public mind with good design.

Here are some of the newer ideas in the "Trend Houses":

A multi-sided house, getting away from the orthodox rectangular design. It makes the house seem more spacious.

Open-wall areas, instead of old-fashioned rooms, and sloping ceilings.

Built-in furniture and storage cabinets and TV cabinet.

Random - width, tongue - and - groove western Red Cedar on the exterior.

Open-beam construction in the ceiling, a popular trend.

It's a half-million-dollar proposition. That's what manufacturers are spending on advertising and other promotion in connection with products included in the houses.

Trend House sponsors are confronted with this problem — they ship less than 30% of their production to the Canadian market, while Eastern manufacturers manage to dispose of an average of 60% of their production in Canada. One important target of Trend House is to raise British Columbia's percentage to 50%.

Trade associations who actually sponsor the houses are the B. C. Lumber Manufacturers Association, the Plywood Manufacturers Association of B. C., the Consolidated Red Cedar Shingle Association.

Because so much money is involved in this spectacular promotion, the West Woods people made a cautious start. They had been invited to exhibit their products at the Canadian International Trade Fair at Toronto.

They started with the idea of putting up a demonstration house on the fair grounds. A Vancouver architect provided a suitable design, to show up the products to the best advantage.

Then the forest industries decided they would get better results by putting the home on a separate site away from the Fair grounds. (They put a scale model on show at the Fair.)

They estimate 200,000 visitors went through the house, though it did not get too much promotion.

The lumber companies back in B. C. were able to detect effects of the experiment in increased Ontario retail sales almost immediately.

About a year ago the trade associations decided to go ahead with the $500,000 campaign now under way.

They appointed local architects in 10 cities. They also got a buyer for each house in advance this time. The architect designs the house for the individual, with local conditions in mind. The result is something practical, not visionary.

Because of the special nature of the building projects, it was decided to subsidize purchasers of the houses. Subsidies are:

Victoria	$1,000
Vancouver	3,000
Edmonton	2,000
Calgary	2,000
Regina	1,000
Winnipeg	2,000
London	1,500
Toronto	2,500
Montreal	3,000
Halifax	2,000

These subsidies are related to the size of the different houses. Construction costs vary, but one may adopt an arbitrary average construction cost of $12 sq. ft. and adjust it to local conditions as nearly as possible. Such a calculation gives relative values of the different Trend Houses as follows:

Victoria	$10,000
Vancouver	20,000
Edmonton	15,000
Calgary	16,000
Regina	12,000
Winnipeg	17,000
London	12,000
Toronto	23,000
Montreal	28,000
Halifax	14,000

Here are some facts about the individual houses:

Victoria—Multisided floor plan, a break with the orthodox rectangular design. Gives an illusion of greater spaciousness than its total floor area of 825 sq. ft. would indicate. A small house, it uses a number of means to add to the illusion of spacious comfort. There are specialty plywood cabinets in the living room, painted grey-green then wiped down to bring out the natural grain. Ceiling is finished in natural beveled Western Red Cedar siding.

Public demonstration period, March 29 - August 1. Local people can see construction at 3516 Richmond Drive, Saanich.

Vancouver—Open wall areas replace old-fashioned rooms, and sloping ceilings replace orthodox "box-type" construction. A split-level house.

Spaciousness achieved in the living area by open-wall combined living area and play-den area. Dining area abuts it on another area, has a view into it through open wall. Exposed structural beams of Pacific Coast cypress extend throughout the house, increasing spaciousness. Floor-length windows across the side. Vertical Western Red Cedar boarding with extended shiplap joint used for all exterior siding and much interior paneling. Extensive use of Douglas Fir plywood built-ins. Floor area is 1,800 sq. ft.

Public demonstration period will be April 5 - August 8. Local residents can observe construction progress at 4300 Block, Skyline Drive, Forest Hills, North Vancouver.

Edmonton — Has built-in furniture and storage cabinets in the living room. Built-in TV cabinet, fireplace unit and storage wall of plywood. Exterior walls covered with Western Red Cedar machine-grooved shakes and roof with Red Cedar shingles. For contrast, grey panels of plywood above and below windows and on garage door. Compresses three bedrooms into 1,280 sq. ft. of total floor area without sacrifice of roominess. This is the most typically ranch-style of the Trend Houses.

House will be open for public inspection April 12 - August 15. Site is 8331, 120th Street, Windsor Park.

Calgary — Roof construction in the one-story wing uses solid Western Red Cedar plank in place of conventional framing methods. This design gives a sloping ceiling on the interior of this wing.

Split-level design, to take advantage of a sloping building site for construction economy. Also allows physical division between living and sleeping areas.

Dining room walls are in specialty fir plywood. Bedroom walls, cedar and hemlock paneling; living room walls, knotty cedar paneling; kitchen cabinets, Douglas Fir plywood. Area is 1,516 sq. ft.

Public demonstration will be April 19 - August 22. Local people will be able to watch construction at 4738 Elbow Drive, Elboya.

Regina — A house designed for the small family without children. Architects tackled the difficult job of giving an otherwise plain home personality. Specialty plywood squares cover the ceiling and one wall of the master bedroom. Both bedrooms feature built-in wardrobes of Pacific Coast Hemlock, eliminating awkward furniture arrangements. Doors and drawers are of Douglas Fir plywood.

Random-width tongue-and-groove Western Red Cedar adds interest to the exterior. This is a modern feature gaining popularity across the country. It adds to appearance and has high weatherability. Area is 1,035 sq. ft.

Public inspection will run April 26 - August 29. Construction can be seen at 3720 Albert St.

Winnipeg — Features "something every family wants" — a multipurpose area. In this case, there are two multipurpose areas, one inside and one outside. Interior area can be used for any one of these purposes: family room, for television and recreation; or a guest room; an alternate dining room; a room for the parents if family grows and all three bedrooms are used; a summer sleeping area in conjunction with screened breeze porch which abuts on it.

Outside multipurpose area between house and carport can be used for: supervised play area; kitchen garden and service area; outdoor dining and recreation patio; sun trap in winter.

Public demonstration will be May 3 - September 5. Site is 278 Fort St., Fort Garry.

London—Dispenses with orthodox framing methods, to save building, labor and material costs. Uses series of shop-fabricated glued wood arches. Framework is sheathed in by planking. House can be added to easily and economically. Two bedrooms feature built-ins. Floor area is 1,180 sq. ft.

Public demonstration will run May 10 - Sept. 12. Progress can be viewed at Stoneybrook Crescent and Fanshawe Park Drive, Stoneybrook Heights.

Toronto — Uses wood as structural partner of masonry, which has long been the area's dominant construction material. Has a spectacular gallery wall in the living-dining-kitchen area, a full-length wall of smooth-textured Western Red Cedar. On the exterior, beveled clear Western Red Cedar siding and V-joint tongue-and-groove Western Red Cedar are both used for contrast. Window panels of blue specialty fir plywood panels and Western Red Cedar shingles.

A three-level family home. Total floor area is 1,700 sq. ft.

Open for public inspection May 17 - September 19. Construction is under way at 41 Weybourne Cres., Lawrence Park.

Montreal — Combines kitchen and play areas on the same floor, and sets the adult living areas in privacy. A house for a large family with young children. Lofty living room ceiling, which follows pitch of the roof and provides spaciousness like an old-fashioned mansion. Open beam construction of the ceiling fits in with a popular trend.

Exterior of tongue-and-groove V-joint Western Red Cedar with white trim and colored specialty fir plywood panels above the windows. Floor area is 1,635 sq. ft.

Public demonstration will be May 24 - Sept. 26. Site is 2 Woodland Ave., Beaurepaire, Que.

Halifax — Family home with three bedrooms, two on the lower level. Use of this level in this manner is also a technique of licking the problem of growing families needing more space and rising costs.

It introduces to the east coast the latest in the type of home design which concentrates on the view potential provided by the building site.

Exterior is Western Red Cedar sidewall shakes, processed and painted green. These are combined with vertical Western Red Cedar in natural stain to provide not only handsome appearance but a durable front to all weather. House has plenty of light and spaciousness without any sacrifice of sturdiness. Floor area is 1,360 sq. ft.

Public demonstration will run May 31 - October 3.

Local residents can watch construction at 19 Crichton Park Road, Dartmouth.

Modern Plants Are Far Cry From Old Caves

The brewery industry is one which depends to a large extent upon refrigeration for the quality of its products, and indeed it can be said that temperature control is the very essence of good brewing.

It was for this reason that the first breweries were almost always located on the sides of hills, where plenty of running water could be found, coupled with caves dug into the hillside. Here the temperature was often sufficiently low to make the process of fermentation possible.

In a modern brewery, malt and other ingredients are used for the preparation of wort at high temperature. This must then be cooled quickly, to prevent bacteria in the air from setting up fermentation. Refrigeration is used at this point, as also is cold brine circulated in the fermentation vessels, to remove the heat of fermentation after the yeast has been added. The brew is now passed to the cellars, where it is stored in glass lined vessels at controlled temperatures.

The next and final treatment is to take the brew, cool, filter, and carbonate it. Cold beer will absorb more carbon dioxide than will warm beer, so that without the advantages of refrigeration, your beer would have a very different flavor.

there's copper in Canada's future

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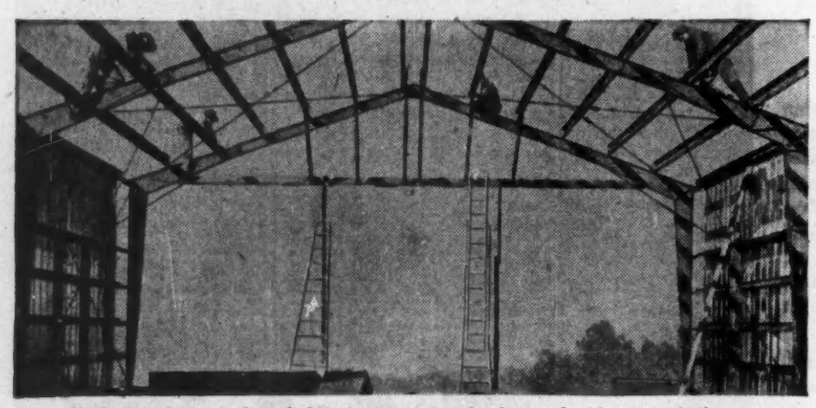

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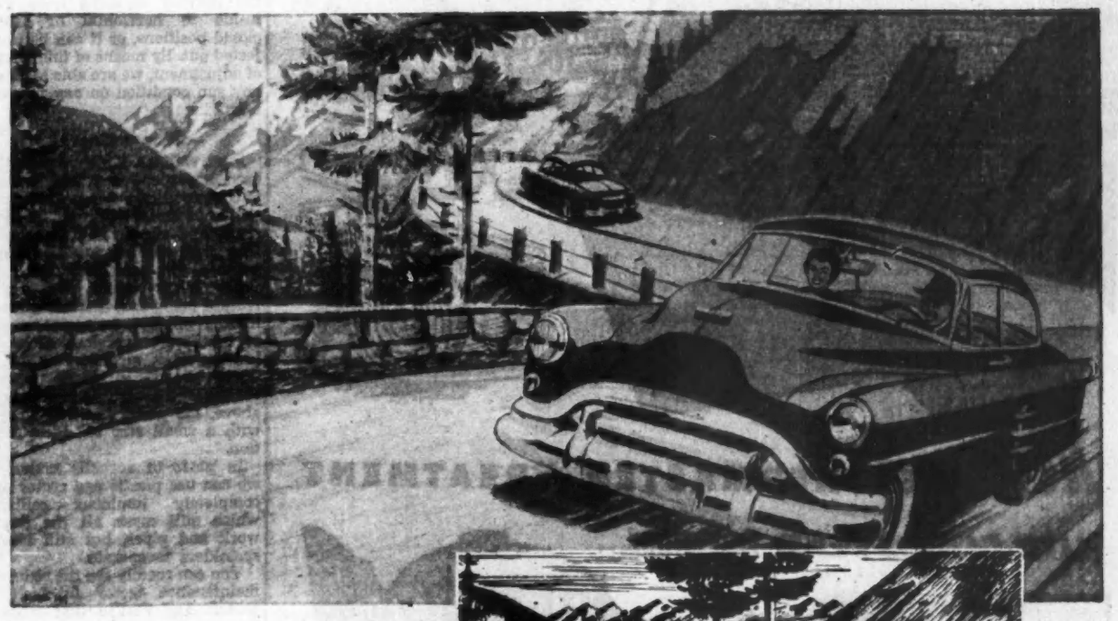

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MANNIX LTD.

MONTREAL TORONTO WINNIPEG EDMONTON CALGARY VANCOUVER

Office Buildings Get a 'New Look'

(Continued from page 65)

backed up with lightweight insulating materials, such as cork, lightweight concrete and various rigid insulations.

Of course, our various city fathers do not quite see eye to eye with the architects entirely, and considerable revision in building codes will have to be made before many of the developed lightweight walls can be used.

This opposition in the codes is a story in itself, but briefly, the problem is that the wall must be such that if a raging fire is applied to the wall for a period of two hours, the inside temperature must not exceed the average rise of 250 deg. F., thus still necessitating in many areas heavy masonry walls.

This may be reasonable, but the unreasonable part is that we are allowed to have windows and the need for fire protection is assumed to stop quite magically at the window sill and jams.

Happily, city codes are now generally all in the process of revision, and we will see increasingly lighter walls accepted in the near future.

From our discussion of curtain walls we logically turn to the changes which are taking place in the skeleton or frame of our buildings. While the physical appearance of the frame appears at first glance to be the same as that used for the last 30 years, a great many changes have taken place. As with curtain walls, the trend is to lighten the frame and reduce erection time and difficulty, which again directly affect the cost of the building.

The composition of structural steel itself has been improved by alloy techniques so that it is now possible to obtain steel having as much as 25% increase in tensile strength over that in use 20 years ago. This factor has the effect of reducing the size of members, and as a consequence, weight.

Formerly it was necessary to encase steel in concrete to obtain the necessary fire protection. We now have various lightweight aggregates such as perlite, vermiculite, or zonolite, which can be either sprayed on to the steel or applied over wire lath as plaster is. This enables us to use the steel section as a space in which to run heating and electrical risers.

Various new methods of connections are now being used, foremost among which is the welded connection. Without going into technicalities, an all-welded frame gives the building continuity, that is, each member uses its neighbor for some of its strength.

This continuity permits the use of smaller members, which, besides being lighter in weight (in some cases as much as 12%-18% for a tall building) permits also a reduced floor to floor height, with the subsequent savings in exterior wall.

Further advantages are better earthquake protection without elaborate bracing, speed of erection, and another noteworthy advantage, the frame can be erected with very little noise, cutting down on complaints from neighboring buildings.

Another noise-reduction feature is the use of high tensile bolts which give the necessary strength to a connection by friction generated between plates as well as the shear on the bolt.

The floors of our office buildings have also changed and are being made to do more than just hold us up. One of these floors is a series of steel tubes placed side by side. Each of these tubes can contain electrical telephone and intercom wiring, which means that office layouts are perfectly flexible and we are permitted to place desks or partitions at will, without being concerned about the necessary service connections.

These floor panels form a base for the concrete topping and eliminate the use of forms for floors for spans up to 25 ft. They are simply laid over the steel beams, welded in place, and are immediately usable as a working floor over which concrete buggies can be run. While this floor is expensive in itself, the decreased labor involved and its lightness often outweigh the additional cost.

Another steel floor takes the form of high tensile steel corrugated sheets laid on the beams, which also eliminates formwork and provides the necessary reinforcing for concrete slab floors.

For smaller office buildings using reinforced concrete, we are using flat plate floors which are simple heavy slabs containing continuous reinforcement and doing away altogether with beams and girders, and as the underside of this slab is perfectly flat and unbroken, formwork is very much simplified.

Use Of Aluminum

Perhaps you are wondering about aluminum. Until recently, no usable formulae had been developed for the design of aluminum structural members, but this difficulty is being overcome and we have seen in Canada, the first all-aluminum bridge at Arvida.

It is possible, by the use of aluminum members, to reduce the all-important dead load of a structure by 65%. This figure becomes particularly interesting to those of this audience who could use an additional story on existing buildings, but who have been prohibited by the fact that columns and foundations would not support the weight of an extra story built in the conventional manner.

In some cases, it will be possible shortly to do this by the use of aluminum frame and lightweight curtain walls previously talked about. But aluminum is still expensive.

The mechanical services of office buildings are undergoing drastic changes, and improved lighting techniques in conjunction with air conditioning, are changing the design of our buildings.

When Rockefeller Centre was built, its sponsors considered that office space more than 30 ft. from a window was almost unrentable, and therefore not worth building. We now find that with air conditioning and modern lighting, the rental value has been upped to $5 a ft. in New York for deep space.

In connection with air conditioning, we must mention window area (a hot subject in architectural fields). We find in recent years architects designing the all glass Lever Building and in the same period the Alcoa Building in which the windows are reduced to portholes only 4 ft. 3 in. high by 4 ft. wide.

Large window areas with mullions capable of taking partitions, have undoubtedly given us light, airy structures, and provided pleasant places to spend the working day, also provided extreme flexibility for office division.

They have also increased the heating and cooling loads to the point where heating engineers state that insulation on walls is almost useless when solid wall forms such a small part of each bay. The increased cooling load calls for elaborate air conditioning, and in the heating season, much larger capacity heating elements.

The Manufacturers Life Building in Toronto obtains both heating and cooling by metal panels under the windows, which have copper tubing attached on the rear, through which is run hot or cold water, depending on the season. In order to reduce heat from the recessed lighting fixtures, these too have cooling tubes surrounding the recess. Air is admitted and exhausted through perforated metal acoustic tile.

The United Nations Secretariat uses high velocity ducts for tempered air. This duct is about 8 in. in diameter, as compared to 2 ft. sq. for conventional low velocity.

Air noise is eliminated by baffles at the outlet. Of course, this system is expensive and requires special care in installation, as air escaping through even a pinhole, would sound like an English train whistle.

The question of air conditioning and heating is highly technical and must be tailored to meet the individual requirements of each building. The question of sun control has a considerable bearing on the design of heating and air conditioning systems, and therefore, I wish to discuss this matter briefly.

If the sun is allowed to come into a building unchecked, the amount of solar radiation imposes drastic loads on the air conditioning system, increasing the necessary capacity enormously. Many methods have been tried, with various degrees of success, in an effort to combat this problem.

These are: heat reducing glass, double glass, inner drapes, and fixed exterior sunshades. The best way, of course, to minimize solar radiation is to control the amount of sunlight introduced into the building, which must be done from the outside. A fixed sunshade does this, but only at certain times, depending on the season of the year.

We have on the boards, an application which we feel meets all cases. This is an exterior sunshade, in effect, a venetian blind with large aluminum louvres, hinged at the top. This shade can be lowered to cover the sash and the louvres adjusted from the inside to horizontal or fully closed positions, or it can be projected out. By means of this range of adjustment, we are able to meet any sun condition on any face of a building.

New Ceilings

First, ceilings. We have recently used a suspended ceiling which is composed of a metal grid consisting of inverted aluminum tees suspended from the structure. Into these tees are fitted lighting fixtures or acoustical tile, in fairly large sheets; the main feature being that this tile can be lifted at any spot for maintenance of mechanical services such as heating lines, electrical or ductwork above. In cases where valves, etc., are immediately above, the panel can be marked with a small star for identification.

In place of acoustic material, we can use plastic egg crates for completely luminous ceilings which still mask all the ductwork and pipes, but still allow sprinklers to operate.

You can readily see the reduced maintenance factor in such a system and realize that service lines can run in any direction.

Flexible partitioning has always been and always will be of paramount importance to the owners and managers of rentable office buildings. A great many types of demountable partitions are now on the market. The essential characteristics of movable partitions are — speed of erection with simple tools, 100% salvage, dry construction, fire and sound resistance, and easy accessibility to wiring or piping in the partition.

The plastering trade is also advancing, and are now applying plaster by machine.

While on the subject of plaster, I should like to mention a product recently put on the market. This is a liquid which, after application, permits plaster to be placed and bonded to any material—glass, granite, marble, old paint, brick, etc., and achieve a perfect bond. This material is particularly useful in renovating or remodeling existing work.

In the field of flooring materials, the main new material is vinyl plastic flooring. All the major companies are now producing vinyl, and all have various claims. One company says their flooring requires no waxing or polishing.

Another says this is ridiculous, and claims only lower maintenance attention.

The cost is comparable to rubber, and it is only slightly less resilient. Its main advantages are its resistance to chemical stain and a somewhat lower maintenance factor.

The paint industry has been going all-out lately in the production of new paint types. Some of these are the rubber base types and Alcyd resins, which have the advantages of cheapness and greater covering characteristics.

We have had very pleasing results in the last few years with an exterior concrete paint which is a water emulsion vinyl plastic paint. It is impervious to sea air, does not become brittle, and resists dirt to a much greater degree than oil based paints.

In one particular case we used this paint on an office building completed about four years ago, almost simultaneously with another a block away, painted with oil paint. Our building shows no apparent fading or deterioration, while the other has required repainting a year ago and is again fading.

We now have available a tremendous range of paint colors, and use them as architectural tools, for by the use of color we can make a room appear warm or cool, and can change the apparent size and shape of a room by psychologically pulling walls and ceilings in or pushing them out.

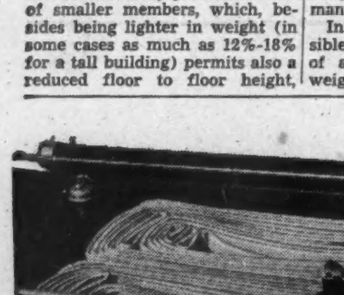
Officers of CCA

N. A. PUTHERBOUGH *of Putherbough Construction Co., London, Ont., is secretary of the Canadian Construction Assn.*

D. L. DONALDSON *of Webster & Sons Ltd., Ottawa, is treasurer of the Canadian Construction Assn.*

NEW WEATHERMASTER TREATMENT

MAKES GOODYEAR FIRE HOSE...



Double Jacket Fire Hose is built for heavy duty. Easily coiled or racked. Has soft, pliable tube with woven jackets. Guaranteed test pressure on delivery—400 lbs.

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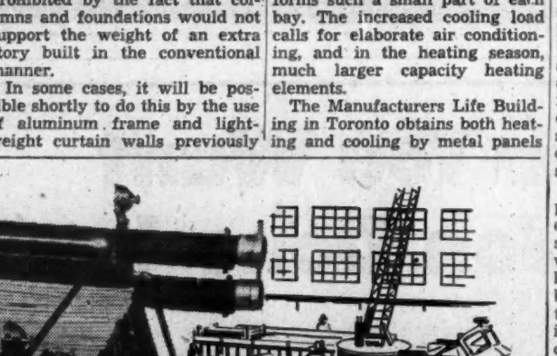

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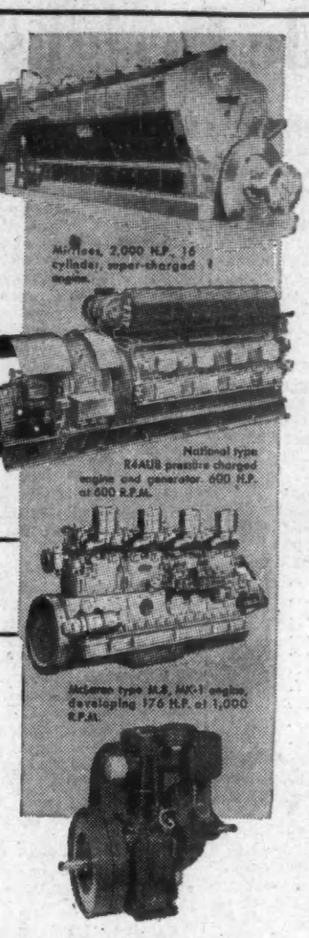
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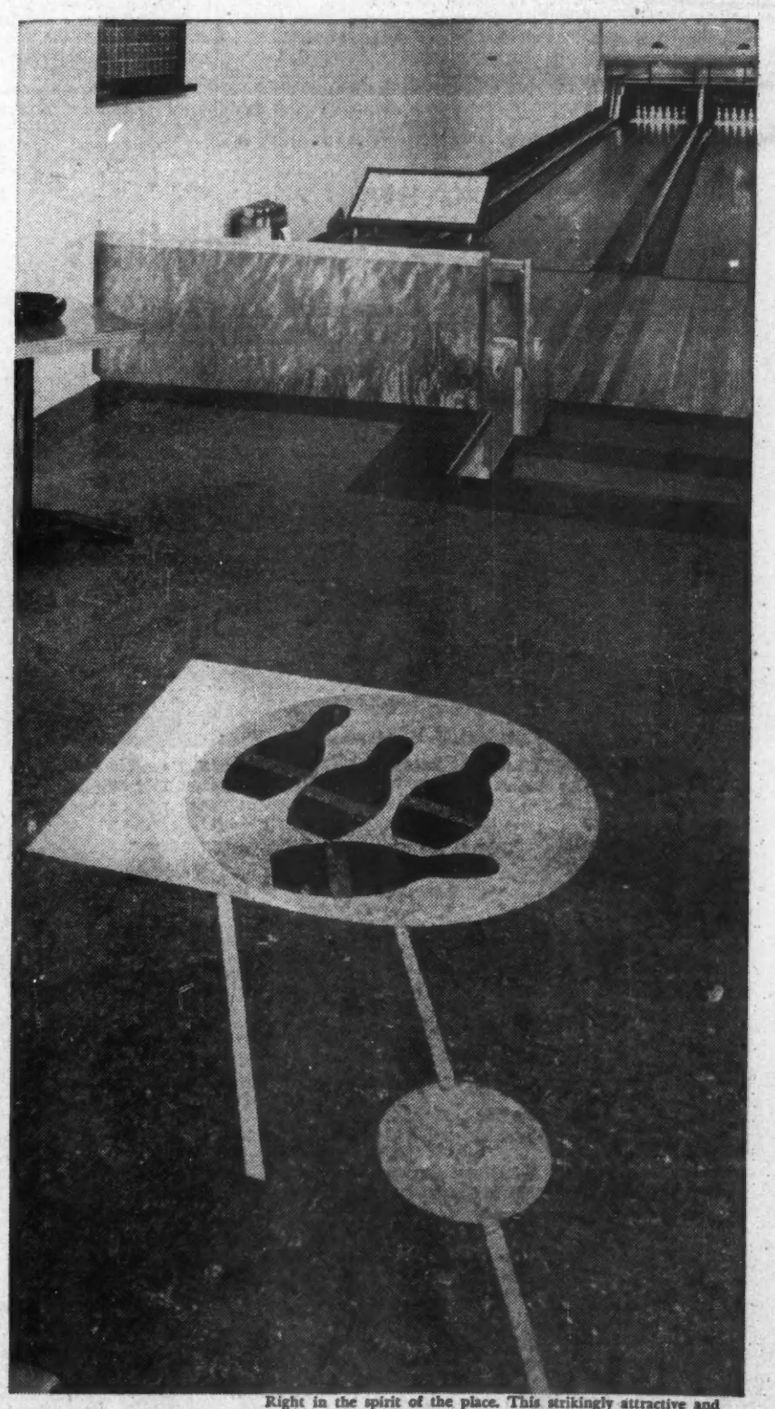

Right in the spirit of the place. This strikingly attractive and appropriate Marboleum floor is in the Club Canadien, in Montreal.

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Are Highway Budgets Big Enough?

Experts Put Road Needs At $450 Millions A Year

At least $450 millions should be spent on Canadian highways each year to make any appreciable impact on the need.

That is the opinion of informed observers. Last year a record $415 millions was the total expenditure. This year, the figure should be about the same. And while these amounts are somewhat less than critics would like, even the critics believe much progress is being made.

Much significance is attached to the fact that Provincial Governments have been steadily increasing their highway budgets without any publicly-voiced opposition and that distinct progress is being made with the Trans-Canada Highway being built jointly by Federal and Provincial Governments.

There is little chance now that the TCH will be completed by 1956 when the 50-50 agreement between the governments expires, but there is also little likelihood that it won't be renewed.

In brief, the feeling is that Canadians want more and better roads to accommodate their growing automobile production and are willing to pay for those highways.

Majority of provinces are planning on highway building plans equivalent to last year's. In a few cases, where there will be small reductions, the tendency is toward leveling of last year's expenditures rather than any trend toward a smaller program.

Several of the provinces have adopted long-range building programs calling for uniform amounts to be spent each year. In many cases, work scheduled for this year will be continuation of programs started two or three years ago and slated for completion in another two or three years.

Highway authorities are looking at road building costs with a great deal more optimism than they have for years. If material prices do not decline in 1954, they are expected to remain steady. Labor costs are also expected to remain relatively stable following years of increases.

Adding this up, it means that approximately the same amount of new pavement and new highways should appear in 1954 as in 1953. It should be possible to do the same amount of work with the same amount of money.

The Trans-Canada

Work on the Trans-Canada Highway definitely picked up speed in 1953 as gaps were filled in what will eventually be a 5,000-mile ribbon of pavement stretching from coast to coast. The whole road is being built to rigid specifications set out in the agreement reached in 1949.

Total commitments made by the Provincial Governments and authorized for TCH construction up to Dec. 31 last year amounted to $137.7 millions. Of this, $46.3 millions was approved during 1953, $12 millions more than in 1952.

The Federal Government paid claims submitted by the provinces amounting to $40.3 millions for 1953; the comparable figure in 1952 was $24.5 millions.

Not the whole of the TCH will be of new construction. The Federal Government has undertaken to pay half the cost of highway already built which meets TCH specifications as well as half the cost of new construction. In addition, Ottawa is solely responsible for the 83 miles of highway in the system that runs through National Parks.

Total cost of the highway to date is $80.5 millions with the bulk of that spent in the Western Provinces.

Ontario, Saskatchewan, Alberta, British Columbia and Manitoba in that order have the longest stretches of completed highway but Prince Edward Island, with better than 44% of its total proposed mileage completed, leads the field in this respect.

Nova Scotia, the latest province to sign the TCH agreement, conducted surveys last year and construction is expected to begin early in 1954. The agreement has been signed with nine provinces with Quebec the only one not in the fold.

Here's Building Outlook By Cities Across Canada

How does building construction outlook appear in different Canadian cities?

Generally very good.

That's the report from building exchange managers and construction associations whom The Post queried and whose replies had been received at time of writing.

Here's the way things look from where they sit:

Is industrial building construction expected to be higher or lower in volume this year than last in your district?

Halifax: "General contractors as a rule look forward to an active industrial building program during 1954."

Montreal: "Not much lower."

Hamilton: "Higher."

Windsor: "Same as last year."

London: "$40 million district boom under way last year, and it is expected to extend into 1954."

Lakehead: "Indications here are that industrial building will be higher."

Edmonton: "About the same."

Is commercial building expected to be higher or lower than last year?

Halifax: "Judging from enquiries regarding commercial building sites, the outlook at present is very favorable."

Montreal: "To be well maintained."

Hamilton: "Higher."

Windsor: "Same as last year."

Lakehead: "Expected to be higher."

Edmonton: "Somewhat lower."

Residential building?

Halifax: "Housing conditions continue to be a subject of serious consideration and in view of the demand for housing accommodation it is considered the residential construction program will exceed that of 1953."

Montreal: "To have a busy year."

Hamilton: "Higher."

Windsor: "Higher."

Lakehead: "Expected to hold the same tempo as in 1953."

Edmonton: "About the same."

Other building construction?

Halifax: "At the present time there is a considerable amount of defense construction going on in this district with tenders being called for a considerable amount more involving some hundreds of thousands of dollars."

Hamilton: "Higher."

Windsor: "Same as last year."

Lakehead: "Institutional work going ahead."

Edmonton: "Expect public buildings to be at the same level or somewhat higher than last year."

Special remarks on building outlook in district?

Halifax: "The construction figures for which permits were issued at the city hall showed an increase of over $3 millions when compared with 1952. All building trades have been busy throughout the year with increased pay for which agreements were made up to May 1 of this year."

Windsor: "Outlook excellent for 1954."

Lakehead: "No reason that the building crest of the past few years should not continue to rise this year. Building trades and subtrades are quite busy here and the end is not in sight."

Edmonton: "Some concern regarding possible short supply of cement and delay in fabricating steel."

Only 8-Lane Highway Bridge Outside New York Is At Van.

Vancouverites have something to be really proud of, that's spanking new too.

It's their Granville Street bridge, recently opened as the continent's only eight-lane highway bridge outside New York.

The bridge crosses False Creek in Vancouver; steelwork is 1,773 ft. long. It cost about $17 millions.

Design is of the cantilever type with suspended span in each flanking span and a central arch span. There is an 83-ft. wide roadway with 6 ft. 11 in. sidewalks on either side. Largest clear span is 397 ft. 6 in., with 90 ft. clearance above maximum high water.

Total steelwork weighs 8,700 tons.

Dominion Bridge's structural division did the major part of fabrication and were contractors for all erection work. Western Bridge & Steel Fabricators also were fabrication contractors.

The Granville St. Bridge ranks as one of the safest jobs of its type in the history of the heavy construction business in Western Canada, according to John Cameron, safety director of Dawson, Wade & Co. and of B. C. Bridge & Dredging Co., general contractors on the job.

He recorded less than a dozen severe accidents and only one fatality during months of complex work, much of it at perilous heights and done under adverse weather conditions.

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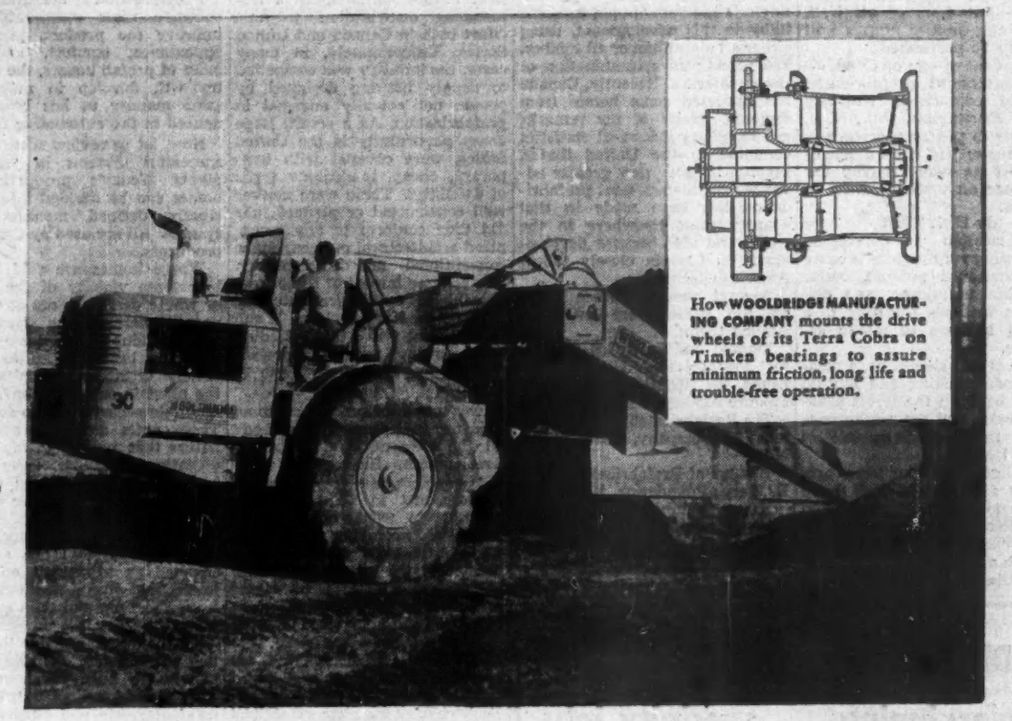

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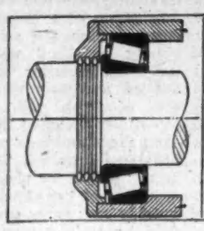

LUBRICANT STAYS IN —DIRT KEPT OUT

Because Timken bearings hold shafts concentric with housings, closures are made more effective. Lubricant is retained, dirt and moisture kept out.

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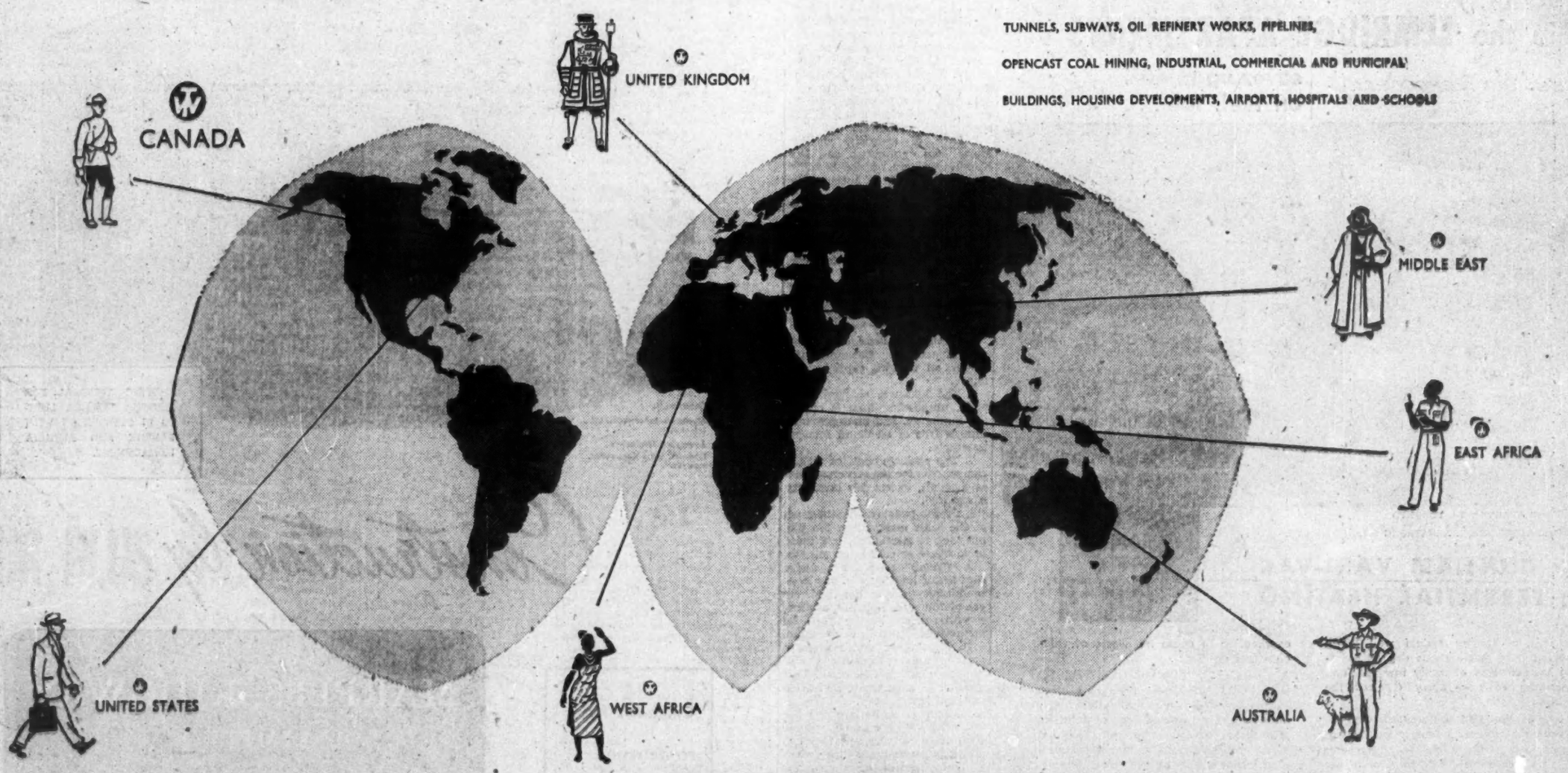

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The Gains Being Made By Prefab. Industry

Growth Is Slower Than in U.S., A Step-by-Step Development

Canada's prefabricated house industry has grown more slowly than its counterpart in the U.S., but it is growing. No statistics are available for this country, but U.S. experience gives some idea of the potential. About 75% of all new houses built in some parts of Indiana are prefabbed. Total shipments of prefabricated houses in the U.S. last year were 55,000 units. A Federal Housing Administration Commissioner there recently made the startling prediction—with which not everyone would agree—that 40% of all U.S. new single-family houses will one day be prefabbed.

President of one of Canada's most successful prefabricated housing companies. Halliday Co. of Burlington, Ont., H. J. Tier has 15 years experience in the industry. Here is a digest of a report he made during the past year on prefabrication in Canada.

By H. J. TIER

Prefabrication is developing and growing very rapidly because of an improved product, better production techniques, and distribution methods resulting in a material increase of public acceptance.

There is and should be, a complete understanding and mutual interest between the forest product industry and the prefabricator. So many problems are of mutual interest.

No longer than four years ago, window frames and sash were shipped to the builder "knocked down" to be assembled on the job. Today, "knocked down" frames and sash are almost a thing of the past. Mills furnish "prefit" assembled units, complete with hardware, and ready for easy installation into prepared openings. Instead of building cupboards and clothes closets into a dwelling, the industry now supplies storage walls. Prefabricated kitchen units have been introduced, thus eliminating the necessity of building these cabinets on the job.

Prefabrication is not new. Panelized buildings have been in use in Europe for a great many years. Notable method improvement has been evident in the Scandinavian countries and Germany. Since World War II, England has contributed substantially to this development, using either all aluminum or all lumber, and sometimes a combination of these materials. Recently, Canada has imported some homes from England. Many of my remarks are based on industrial statistics compiled in the United States, because in late years greater advancement toward total prefabrication has been made in that country than elsewhere in the world and also because developments in Canada closely follow American trends.

Several good reference books on the subject are available. Among them:

Manual on Wood Construction for Prefabricated Houses—published by Housing and Home Finance Agency, Washington, D.C.

The Prefabricated House, Doubleday & Company, Garden City, N.Y.

History of Prefabrication, John B. Pierce Foundation, New York.

House and Home Magazine, November issue, 1952.

Prefabrication, by Bernard Kelly of Beamis Foundation.

Even a brief glance at the pages of these studies of prefabrication will, I am sure, impress the reader that much thought, ingenuity, time, effort, and money has been spent in efforts to find a new and better method of building homes. Several large corporations in the wallboard and plywood industry have contributed their share in this development.

During World War II, it was found necessary to rapidly provide temporary housing for a great many families adjacent to centres actively engaged in war production. Prefabrication made a tremendous contribution to this effort both in Canada and United States. Unfortunately, in many cases, the industry was compelled to supply housing designed by people not actually engaged in prefabrication. As a result, large areas, particularly in the United States, were covered with temporary, cheap, inadequate types of dwellings. These were neither well constructed or planned, nor did they conform to any recognized architectural pattern, either conventional or contemporary. The adverse impact of these wartime houses on the growth of the industry was tremendous. It can be safely estimated that retarding effect on development of prefabrication has been from 10 to 20 years.

This was a major obstacle to an industry that seemed to embody all the elements for prosperous development. Having one common problem, established prefabricators met in Chicago in an attempt to find an effective remedy. My company was among those present. To combat adverse public opinion toward the prefab house, the Prefabricated Home Manufacturers' Institute was founded. Through the offices of this organization, we were able to attack our problem. First, we compiled a performance standard for the product of our industry. Each charter member subscribed to this standard. This has since become the measuring stick whereby we receive or reject membership in the Institute. I personally feel that this decision to control our own standards has been the greatest single force contributing to our rapid growth. Second, we instituted an industrial advertising campaign in Canadian and American publications. Through this medium we were able, to a large extent, to offset the adverse effect of "wartime" housing and inform the buying public of the many advantages offered by prefabrication.

In the United States, factories for the production of homes have been located near a few of the larger centres of population. There is still plenty of room for expansion since it is only natural that manufacturers have concentrated their sales effort on areas adjacent to their plants. In a recent survey, we found that where sales outlets had been established for 10 years or more, public demand for prefabricated housing has grown. In some areas, such as Fort Wayne and Lafayette, Indiana, more than 90% of homes built at a cost of less than $15,000 are prefabricated. In several other communities sales are rapidly approaching like proportions.

I believe that if manufacturers continue their co-operation to improve the product, planning, appearance, comfort, and the price of prefab houses, the industry will develop in much the same manner as has been evidenced in the automotive field.

Now, let us review some of the successful systems in "prefab" plants. Today's production of homes can be divided into three clearly defined manufacturing systems. All are used by Canadian producers.

Where homes are sold in the immediate vicinity of the plant, or where dwellings are of a temporary nature, the maximum salvage value is a vital consideration, the building can be completely erected and finished in the plant in such a manner as to facilitate separation into sections. These units are of a size and nature that make highway transportation possible. Usually, a house can be assembled on the site by joining two, three or four of these sections together.

In some instances, homes built under this system are so constructed as to permit one unit telescoping inside the other for transportation, and then expanded on the job.

The next and probably the most universal system is where wall panels are built to room sizes. This method makes possible the most complete and efficient prefabrication of a house. In many cases, houses are shipped completely panelized with the interior and exterior wall surfaces applied and only requiring one coat of finish paint, wiring is sometimes included in the panel, even the plumbing "roughing in" has been installed. This method is best suited for production line assembly of the panels. They are quickly and easily erected in the field by trained crews.

Finally, there is the modular system; here walls of the building are divided into a number of standard size sections. In the United States and Canada, these are usually four ft. by eight ft. as this dimension conforms to standard size plywood or wallboard sheets. The English house imported used a 40 in. module. Where this system is used, prefabrication is not usually as complete as it is in the two systems mentioned previously.

This then is the basic background of prefabrication and of the development of the industry. Let us now consider the advantages of prefabrication to the project builder and the home owner. There are many advantages, and among them are:

1. Parts are manufactured to accurate dimensions and less field supervision is required.
2. Ease of erection, smaller crews, less equipment, and less bookkeeping are needed to build the same quantity of houses, thus reducing overhead.
3. Less supervision is required and a builder can complete more houses per year. The average completion time for a prefabricated home is from four to eight weeks.
4. More houses are built, and profits can be increased on the year's operation although the profit per unit may be reduced.
5. Completion time is faster by several months. Therefore, the amount of working capital is reduced.
6. The house is shipped complete, purchasing time is cut to the minimum, and management's time is free of all detail relating to supply.
7. The package contains all the components for the structure, and as a result, excess job inventory is reduced.
8. Prefab panels eliminate much of the loose material on the job, pilfering is minimized, and there is no waste or cutting on the job.
9. "Prefab" houses are under roof faster and there is less nonproductive time in the field. By pre-planning and site preparation, a year-round operation can be maintained—even in our climate.
10. Panels are constructed to most accurate dimensions and lumber used must be of the best quality. In most cases, kiln-dried material is necessary.
11. Prefabricators produce the same house in greater volume than other builders, and they can afford to spend more time on the designing and engineering of the product. This results in greater economy, greater space utilization, and greater comfort.
12. The industry is definitely interested in its growth, and many companies supply free professional services and guidance to their customers. For instance, they secure approval of all plans from Government agencies. They employ the services of subdivision planning engineers. They help with financial arrangements for the project. They supply an advertising plan that has already proved successful. They are able to compare each element of their dealers' cost with the average cost in other districts and help him to improve his methods and his profits.

Advantages to the purchaser of a prefabricated home include:

1. Panels are made under ideal shop conditions from good materials, cut to accurate sizes, and workmen's time in the field is more productive. Recently, a survey of comparative costs of conventionally built and prefabricated housing was made in the United States by an independent company. It was found that savings varied from 5% to 45% in favor of the prefabricators, the national average was considered to be about 20%.
2. In Canada we are using the most simple form of prefabrication, and purchasers perform much of the work, themselves, thus reducing the over-all out-of-pocket cost of the house.
3. Prefabricators are interested in the development of their own company and the industry, and we know we must maintain a high standard of quality. Most plants represent substantial investments, one of the best guarantees of an expanding use of these facilities is from a record of good customers, satisfied with a quality product and good service.

Canada's progress in the field of prefabrication has been slower and more conservative than in the United States. We have about 10 firms actively seeking a market with, I believe, increasing success. Four of this group are members of the Prefabricated Home Manufacturer's Institute and they are following closely developments south of the border, and will bring to Canadians new comforts and economies in home construction as the "climate" of the market in our country becomes increasingly receptive.

There are several obstacles in the path of our progress here. I am sure that, in time, they will be overcome. To give the maximum in savings, prefabrication must serve a market that will enable plants to manufacture houses on a production-line basis. Here our population is small and scattered when compared with the market in the United States. Consequently, we cannot afford to develop plant capacities or labor-saving devices to the same extent as would be possible were we serving a market such as is found in New York, Ohio, Michigan or Illinois.

The distances we must transport our product from plant to customer have a bearing on the type and amount of shop work completed before shipment. In

(Continued on page 71)

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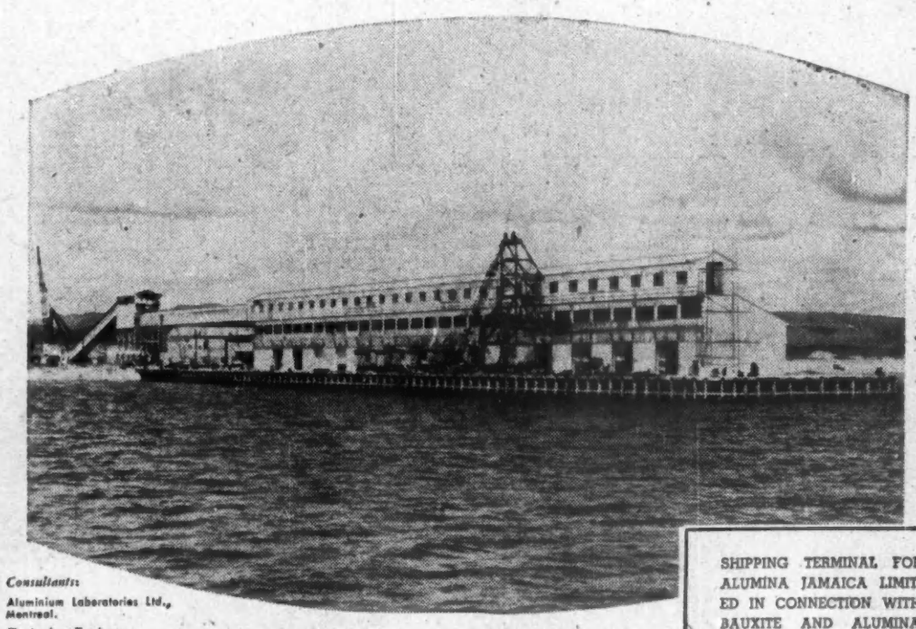

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When Rent Control Comes Off

London's Results Show Decontrol Can Work Well

Rent control still prevails in many parts of Canada. A subject of intense interest to householders, it is the centre of controversy in several communities. What happens when it comes off?

One city which has gone through the experience is London, Ont. Conditions vary to some extent from city to city, but London's results show that removal of controls doesn't necessarily mean wholesale hardship. The city might be regarded as a laboratory of rent decontrol. Here is a Financial Post report on the London situation:

A small group organized for the purpose fought removal of rent controls in London and forecast great hardship on tenants. There have been a few such reports but there has been no big upset as a result of decontrol. The removal of controls in September became effective with scarcely any public interest or notice.

City Council, the London Property Owners Association and the Family Service Bureau offered to examine any complaints from tenants and to assist in obtaining fair and reasonable arrangements between landlord and tenants. City Hall officials and Family Service Bureau have received only a few complaints, the Property Owners Association none.

The December elections — the barometer of public opinion— passed without the subject of rent controls having been offered for discussion from any quarter. The apparent reason is that there has been no problem and relations between property owners and tenants have resumed a normal and mutually satisfactory basis.

Several cases of increased rents have been reported in the lower rent ranges. For example, rent in some instances has increased from $60 to $85, and the tenant has been forced to fit that into his budget or find other housing. In most cases, it has meant finding other shelter and hence the demand for low-rental housing has increased.

Others, supporting themselves on a marginal basis, have found themselves in the squeeze but are not complaining. Still others, mostly in the fixed income groups (pensioners) have been forced to move out of the city where rent in the townships is still under control. Others affected have absorbed the rent increase but another part of their budget has suffered.

In nearly every case, rents had been low when control was put on and never had a chance to rise while control was still in effect. Last year, before decontrol, there were many vacant homes in London, held for sale by owners who would not rent lest they could not deliver possession. Such houses were immediately made available on monthly tenancies and many of them were sold before control came off.

As soon as control was lifted, rents were jacked up and numerous houses became available that previously had been held only for sale. With control off, realtors bought up housing units with no longer any fear of not being able to force eviction or of increasing rent. As more rental units were supplied and as the demand dropped in higher rent ranges, there was some leveling off in units renting between $85 and $125. But the increasing demand and the short supply of low rental houses persists.

Welfare agencies and other organizations involved feel the problem will not be solved until some other scheme for provincial housing at low cost is provided. Meanwhile complaints from tenants in the low rental group have been tailing off and at present they are being heard by the tenant's alderman.

Many owners were formerly afraid to rent to parents of small children because large numbers of cases were reported in which property was damaged and the owner seldom had redress. Now, with higher rents, both owner and tenant are aware that if the property is not given reasonable care the owner will have a right to demand possession.

However, distress and hardship still face many families with children in the low-income groups who are forced to find shelter in the few low-rental houses available and over-crowding living conditions has been the result.

Since controls were lifted the frantic type of advertisement appealing to some kind landlord to provide a home have disappeared from Want Ad columns, and the number of vacant houses and apartments offered for rent has nearly doubled. In the January 22, 1953 edition of The London Free Press 38 vacant apartments were advertised for rent. In January 22, 1954 edition of the same newspaper, 64 were listed.

According to the latest figures, there are vacant in London 165 single housing units and 128 under construction, 95 duplexes, 35 triplexes, 66 apartments with 50 unfinished, 48 apartment-over-commercial units, and 39 apartments sharing bath. This is a total of 626 units compared with 417 vacant a year ago when rent control was in effect.

It is predicted that as the supply further increases, it will match the demand or go above it and rents, not only in higher ranges, but also for low-cost units will decrease effectively.

A sign of the times was the question a small schoolboy in the city recently put to his teacher: "I saw a sign in a window today that said 'To Let' — What does it mean?"

More Land

Shortage of serviced land for house building is being tackled by Federal and Provincial Governments by means of land assembly programs under the National Housing Act. Changes in the Act will not affect carrying out such programs or starting new ones. NHA land assembly lots totaling about 4,000 are expected to become available in 1954-55 in different parts of Canada. Other projects are under negotiation.

Here is a list of land assembly lots expected to be ready in 1954-55, by localities:

Corner Brook	200
St. John's	200
Arnprior	40
Atikokan	200
Cobourg	300
Kitchener	400
London	500
Ottawa	350
Peterborough	300
Sarnia	500
St. Thomas	100
Midland	20
Kimberley, B.C.	50
Trail	100
Amherstburg	30
Brockville	100
Guelph	200
North Bay	56
Owen Sound	50
Stamford Township (Niagara)	60
Stratford	125
Trenton	150

How Prefabs Are Gaining Headway

(Continued from page 70)

other words, we must ship weight rather than bulk.

Most of our building codes are so written that permits are issued, or rejected, on the basis of dimensions and species of lumber used in the structure. Of course, all homes must conform to room sizes, and other regulations. However, during the past few years, many new building techniques have been developed, and these have resulted in changes in the sizes and type of lumber required. Plywood used in stress-skinning a frame has made it possible to build a structure of equal strength with much less material. Other systems are continually being invented and tested as new building methods are developed. Where it is permissible to take advantage of these new developments both in productive methods and materials, considerably reduced costs are achieved.

Prefabricators ask no favors. They only ask to prove, at their own expense, that a new material or technical development is as durable and as strong as could be obtained by conventional methods under the existing code and that it should be classed as acceptable. Code changes could then be made and buyers of homes would receive additional benefits from prefabrication.

Because production line methods are used in prefabrication, it is very difficult to change procedure to conform with variation in structural requirement of various building codes. We must, therefore, keep our process flexible to meet these conditions or be content with serving part of the market. During the past 10 years many of the problems in this field have been rectified in the United States, and I am sure, we in Canada will make similar code improvements. Another major obstacle in the development of our own industry in Canada is the inadequacy of present financing. This problem is common to the prefabricator and the conventional builder alike. In this country, we have two Government-sponsored plans.

The Veterans Land Act enables a qualified veteran to purchase a home by loaning him up to $6,000. You will realize how impossible it is to build a satisfactory dwelling for such an amount. The veterans' administration has conducted winter instruction courses on home construction for the past several years. The results have been very successful, many prefabricated homes have been built by graduates of this course. They have been able to reduce the cash outlay normally required and the homes generally give evidence of good workmanship. The Central Mortgage & Housing Corp. offers quite a different plan, here loans are made under the National Housing Act. Mortgages under this plan are written up to 80% of their appraisal.

This agency does not encourage people to build part or all of the home themselves unless they are active in the building trade or can give evidence of competence.

I understand that some more realistic approach is now being considered. In the United States, interim financing is available to some prefabricators while other companies have their own acceptance corporation. Generally mortgage appraisals on prefabricated homes are more generous in the United States than in Canada. There are some instances where the loan value of the house exceeds the total cost of the structure and land. I am reasonably sure that government and private capital will soon make some adjustment to reduce the down payment on small homes. I know they recognize the problem.

Recently, several new products have appeared on the market that will probably be used by the industry, aluminum frames and sash can now be purchased and installed for less than wooden frames, sash and trim plus their installation cost. Our houses are being made more attractive through improving their appearance by using a combination of two siding materials on the front of the home, the siding is arranged to lend itself to decorative effects in more pronounced colors than used at present. Variety and freshness of design is being achieved by using stronger colors on the body of the house and reducing the strength of color in the roof. Other developments are being studied and adopted almost daily.

In October, 1952, the industry as a group co-operated in designing a house for use in critical defense areas, where the structure might be of a temporary nature. This house is planned as a one-floor, two-family unit, and constructed to meet present building codes. Should it become advisable to move the dwelling for re-use at another site this is possible with a minimum of labor and the least possible loss of material. On the other hand, if conditions change and it becomes necessary to build permanent homes on these sites, this two-family temporary dwelling can, for a small expenditure, be transferred into an attractive, modern, single-family, ranch-type home. A study of development within the industry will convince anyone that the manufacture of prefabricated homes can make a substantial contribution to better, more modern homes at reasonable prices.

COMPANY REPORTS

MUTUAL LIFE ASSURANCE CO. OF CANADA shows insurance in force on Dec. 31 at $1,537 millions, having passed the $1.5 billion mark in Sept., 1953.

Figures are net, excluding assurances reinsured with other companies. Nor do they include annuity business or operations of the group accident and sickness branch. The statement for 1953 was described by President L. L. Lang as the strongest presented to the policyholders in the last 10 years in which he has been president.

Total new insurance was $166 millions, including $19 millions group.

The gain in total new insurance was $22 millions over 1952 and represents the sale of over 32,000 policies to Canadians, 2,200 more than in 1952. The company has 63 branch offices located at leading centres across Canada. Premium income of the group accident and sickness branch was about $3.5 millions.

During the year the company continued to put emphasis on housing investments. During the postwar years it has helped provide funds to finance over 34,000 homes in over 300 communities in Canada, a dollar assistance in buying and building new homes of over $175 millions.

Average rate of interest earned on invested assets was 4.32% and total income was $67 millions. Mortality experience improved in 1953. At year end A. E. Pequegnat, general manager, retired and was succeeded by H. L. Guy, formerly assistant general manager.

	1953	1952
	——$000——	
Assurance in force ..	1,537,356	1,386,841
New assurance	166,033	143,911
Total income	67,059	62,597
Premiums, etc.	41,444	38,072
Int., divds., rents ..	17,400	15,986
Other income	8,215	8,539
Pol. payts., incl. divds.	25,172	24,120
Expenses	9,000	8,722
Incr. in pol. res.	22,076	20,228
Amounts withdrawn .	7,949	7,592
Assets written down .	257	28
Surplus earnings	8,353	7,421
Less: P'holders divds.	5,768	5,524
Incr. in p'holders' divds. subseq't yr.	775	300
Incr. in sp'c inv. res.	500	400
Liabs. to p'holders incl. actuarial res.	393,114	371,779
Other liabs.	9,287	8,373
Special res.	13,791	12,569
Total assets	422,335	410,553
Free surplus	6,143	17,833
Interest earned	4.32%	4.20%

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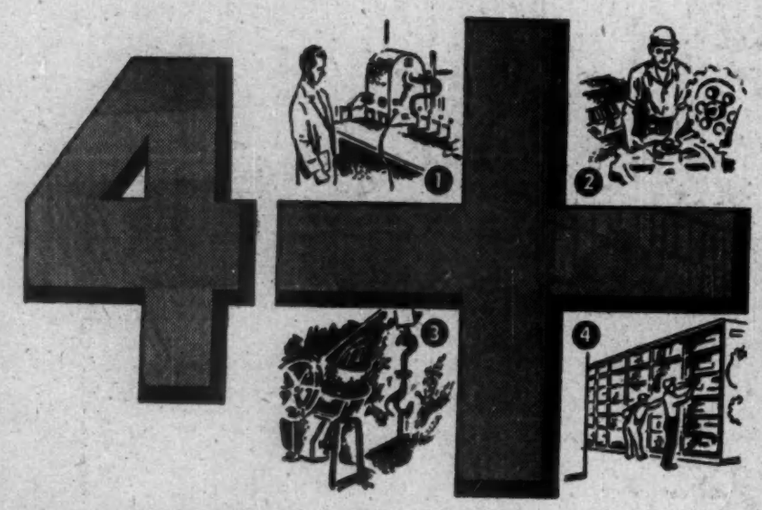

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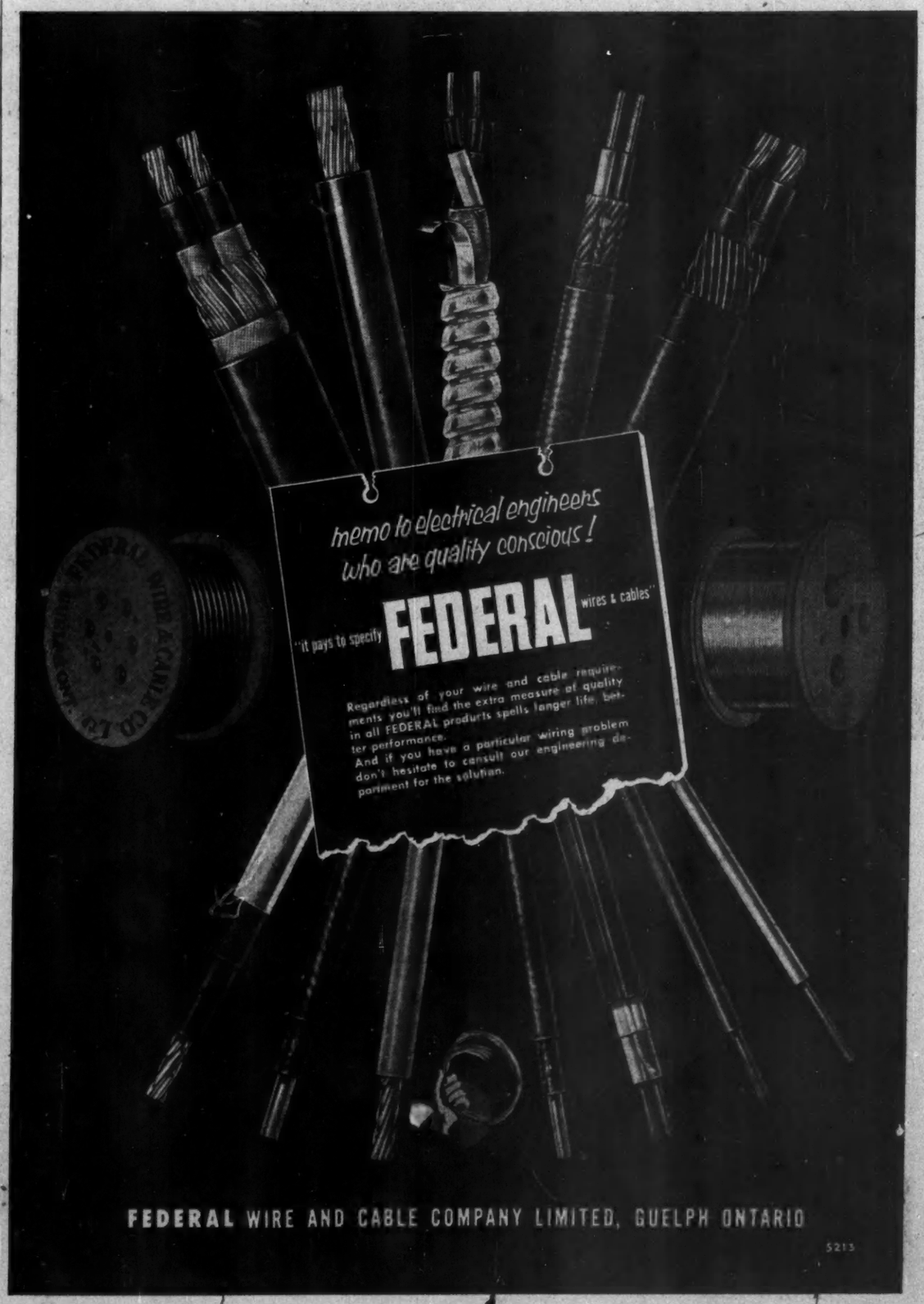
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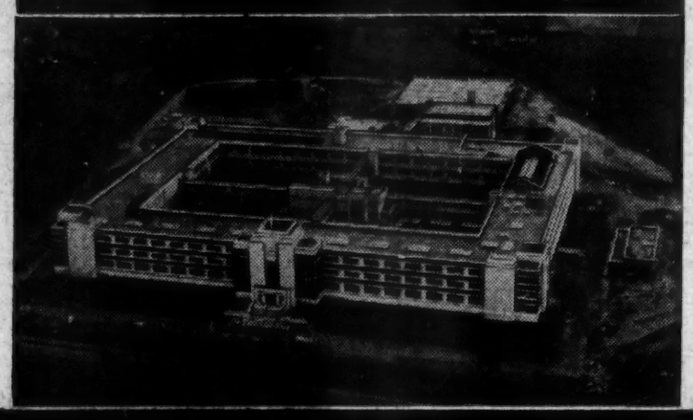
"MULBERRY HARBOUR"

McAlpines constructed one-tenth of the total of 1,000,000 tons of Phoenix Caissons which comprised the famous Mulberry Harbour, towed across the English Channel and set down on the Normandy Coast. The largest types of these caissons, each weighing 7,000 tons, were constructed in the London Docks. McAlpines provided the Chairman and one other representative for the five-man committee that decided on the design adopted and used with such success.

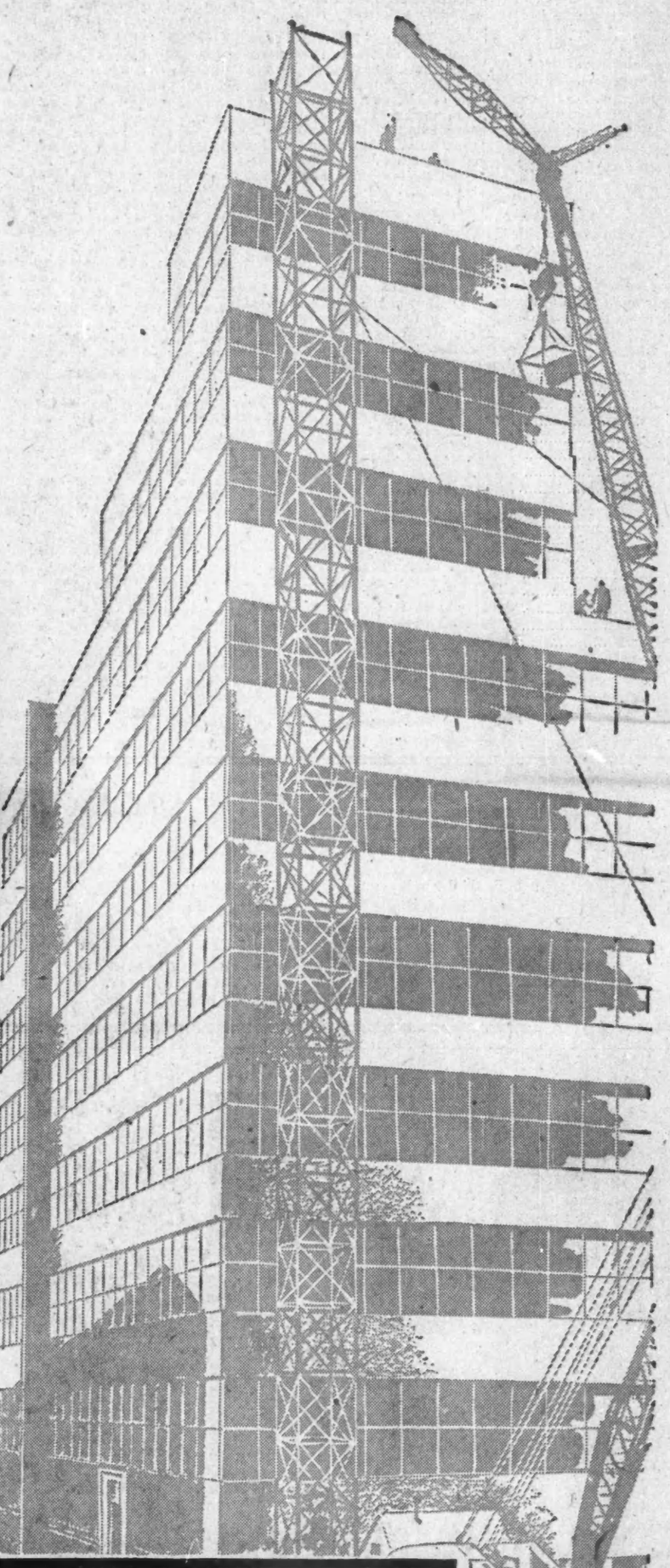
FAMED WEMBLEY STADIUM

This great stadium, which is synonymous with soccer in the old country, was completed in 12 months, in time for the 1923 F.A. Cup Final and 100,000 ardent fans. The remaining buildings for the Wembley Exhibition were commenced later, and completed in May, 1924. A total of 12,000 men were employed in the construction of this vast Exhibition.



IMPERIAL TOBACCO FACTORY

Completed in 1950, this factory, at Newcastle, has a structural steel frame encased in concrete, with panels of brickwork and artificial stone features on the external elevations. Precast terrazzo wall linings are a predominant feature of this very modern factory. This $6,000,000 job was carried out under the McAlpines co-operative contract, under which the client participates in any savings effected.



McALPINE COMES TO CANADA

It is more than 80 years since Robert McAlpine founded the company that in 1953 entered the Canadian construction field. McAlpine contracts include such engineering contracts as the second subway in the world, completed in Glasgow in 1894 . . . the large buildings and stadium for the British Empire Exhibition at Wembley . . . Tilbury and Southampton Docks . . . the Mersey Tunnel . . . harbours in West Africa and the Mediterranean . . . the Dorchester Hotel . . . Odeon (Leicester Square) Theatre . . . and the famous Hospital for Sick Children, Great Ormond Street, London.

During World War II McAlpines built 20 major airfields, complete with hangars and living accommodation . . . several of the largest ordnance factories . . . completed, in four months, 150 miles of anti-tank defences along the south coast of England . . . and constructed a substantial percentage of the huge Phoenix floating breakwaters. These concrete units, in whose design McAlpines played a large part, were towed across the English Channel and sunk to form the Mulberry Harbours for the invasion of France.

Now, this vast organization has come to Canada, bringing with it an untold wealth of engineering experience and achievement. Among the contracts so far obtained in Canada is the $1,350,000 Toronto Harbour extension. Yes, McAlpines Canadian organization has already given proof of its ability to organize speedy and economic work.

If you have a construction job, or a projected development, contact McAlpines and obtain the benefit of their great experience in the form of an economical and practical job executed in the shortest possible time.

SIR ROBERT McALPINE and SONS (CANADA) LIMITED

1610 Sherbrooke Street West, Montreal

38 King Street West, Toronto

FUSION WELDING SHOP

G. A. Harvey & Co. (London) Ltd. entrusted McAlpines with the design and construction of their Fusion Welding Shop, which had a required height of 56 ft., and was 700 ft. long. Structural steel was, at that time, extremely difficult to obtain, so the design adopted utilized pre-cast reinforced concrete units, up to 17 tons in weight. The entire work was completed in less than 6 months!

LOCH DOON DAM

This concrete dam is one of several constructed by McAlpines during the development of the Galloway Hydro Electric Scheme. The firm have 75 years experience in the construction of similar large, heavy engineering works, including railways, bridges, tunnels, reservoirs, roads, wharves, and jetties in many different types of earth and rock formations.